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Executive Summary

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Executive Summary

Planning Process

CORRIDOR PLANNING in Idaho was undertaken as an effort to develop a set of priorities for improving State-owned highways in collaboration with local jurisdictions. This process began in the late 1990s, and as corridor plans are developed and adopted by the Idaho Transportation Department Board, priorities for highway development and improvement are helping to shape the project programming process.

The collaborative nature of corridor planning ensures that the public, stakeholders, and local elected officials have the opportunity to help shape the development of the state highway system. By fostering this sense of joint ownership, the State expects to save resources in project development through early identification of needs. This will ultimately decrease the time from project funding, through the NEPA process, and construction.

In an economic sense, the "experiment" of corridor planning has paid out very large dividends in Idaho, as well as in several other states throughout the nation. The early consideration of local needs and corridor issues has allowed projects to proceed with relatively few objections from concerned citizens, as they have had an opportunity to express their concerns up front and have helped to shape the projects that are considered through project development.

Producing a plan for the US 26 corridor will help the Idaho Transportation
Department allocate financial resources to corridor projects by describing highway

needs in detail for the US 26 corridor. As other corridor plans are developed, financial resources on a statewide basis can be allocated in line with regional priorities. Through this planning, ITD can develop and achieve a long-range vision for the maintenance and improvement of the US 26 corridor. The corridor "vision" is then translated into management practices and project improvements that will serve the corridor for the next 20 years and beyond.

Key Issues

The key issues identified on the US 26 corridor are separated into three broad categories. Safety issues on the highway are described first, followed by issues related to growth and development and environmental sensitivity. These issues represent the concerns of local stakeholders, Idaho Transportation Department staff, and the consultant team.

Safety

The US 26 corridor is currently a very safe highway by State standards; however, highway improvements will ensure a high level of safety throughout the corridor in the future as traffic volumes increase. The following paragraphs explain possible improvements on the corridor that will help maintain the high degree of safety currently on the corridor, even with the addition of forecast growth.

The key issues
are safety,
growth &
development,
and
environmental
preservation.



Manage Access

Implementing access management policies on the US 26 corridor would significantly impact safety now and for the future of the facility. The number and type of private access points on US 26 has been a factor in the number and severity of accidents on the highway, particularly on Segment 1 between Idaho Falls and the Ririe cutoff. This segment of US 26 is approximately 11 miles long with approximately 163 access points. The number of accesses per mile is included in Table 6, but on average there are approximately eight per mile on each side of the highway. For this type of highway, a rural two-lane segment should have no more than three private driveways per side of the road per mile. Thus, there are approximately five more driveways per mile per side on average than should be allowed for the traffic and travel characteristics of the roadway. Further discussion of access management for Segment 1 is located in Section 5.

The area surrounding Swan Valley and Irwin is projected to experience continuing development in the future. In many ways this area is being "discovered" for its scenic beauty and close proximity to outdoor recreation areas. This area is beginning to develop with second homes and new housing, as well as other types of development catering to tourists and recreational visitors. As development pressures mount, so will the pressure to allow direct access onto US 26. Planning for the access and for county and city road locations will allow development to occur in an orderly manner, while maintaining a high degree of safety on the highway.

Add Turn Lanes at Intersections

Several intersections on the corridor could benefit from turn lanes. Two that have already been programmed for construction include the intersection with State Highway 31 and the intersection with the sportsman's access east of Granite Hill. Several intersections in Segment 1 will be recommended for turn-lane improvements with the recommendation to widen the first 5.5 miles of that segment. Other turn lanes should be investigated on a case-by-case basis.

Improve Roadway Alignment

This particular area has horizontal alignment inadequacies and high environmental sensitivity, as well as some of the most scenic views on the corridor. In addition, there are some depressions in the line of sight around Palisades Creek that need further investigation for improvement.

Add Safe Highway Crossings

Certain areas of the corridor have high levels of traffic crossing the highway. Crossing traffic includes farm vehicles, equestrians, hikers, snowmobiles, and four-wheelers. When new projects are being developed, crossing safety should be reviewed to ensure safe passage for various modes of travel.

Improve Shoulders

Several areas on the corridor have inadequate shoulders, which pose a safety concern on many levels. Besides allowing bicycles and pedestrians to use the corridor with greater safety, a shoulder provides disabled vehicles a place to pull out of the traffic stream and gives vehicles a greater clear zone for maneuvering.

Growth and Development

Understand Cumulative Impacts of Development

Each individual development on the US 26 corridor degrades the performance of the

corridor to some small degree. As more developments locate in areas where they impact the corridor, the cumulative effect of that development can have long-term negative consequences on the function and capacity of the highway. These impacts need to be understood and thought of in a holistic sense to ensure long-term protection of the public investment in the corridor. This can be accomplished through county and city development codes.

Improve Passing Opportunities

Passing opportunities in the US 26 corridor are limited to a small number of hill-climbing sections and the flat areas where passing is allowed in the oncoming traffic lane. Provision for passing lanes and pullouts is an important feature in the development of this corridor.



Many areas of the corridor are lacking in passing lanes.

Create Mechanism to Review Land Uses in Coordination with Local Governments
Presently, no mechanism compels local governments to coordinate land use improvements with the ITD District office.
To ensure that the highway continues to function appropriately, a notification procedure should be developed between local area governments and ITD district

planning staff that would alert the district to upcoming land use impacts on US 26.

Monitor Growth and Capacity Needs

With development occurring at such a rapid rate in Swan Valley, close monitoring of roadway impacts should be developed to ensure adequate transportation facilities in the future.

Accommodate Increases in Commuter Traffic

As the city of Idaho Falls continues to grow, the desire of people to live outside the city and commute to work will also intensify. Recommended improvements should accommodate commuter needs as they exist today and as projected into the future.

Preserve Agricultural Access to Corridor

US 26 was first developed as a farm-tomarket roadway facility. The original agrarian roots are still quite strong on this highway. Preservation of the right to move equipment on the corridor is necessary for the long-term viability of agriculture in the area.

Environmental Preservation

Minimize Impacts on Sensitive Resources

The US 26 corridor runs parallel to and crosses portions of the Snake River that have been designated as "Areas of Critical Environmental Concern" by the Bureau of Land Management. To determine the occurrence of tract-protected and sensitive wildlife species, the Idaho Conservation Data Center (IDCDC) was consulted. The IDCDC is a database for tract-sensitive and protected wildlife species throughout Idaho.

Mitigate Impacts of Alternatives on Sensitive Species

The South Fork of the Snake River, which parallels this corridor for much of its distance, is host to many sensitive species. Recommendations in this plan avoid as many impact areas as possible, but in those areas where impacts are unavoidable, mitigation will be required.

Preserve Environmental Resources to Maintain Economic Viability of Area

The communities that are located along the corridor get much of their economic base from recreational tourism. Thus, a large portion of the local economy depends on a clean environment. Preservation of environmental amenities is very important for any new projects in the area.

Improve Accessibility to Natural Resources for Recreational Users

Improved signage and access to outdoor recreation sites would decrease confusion for tourists and drivers unfamiliar with the area. A large portion of the traffic on this corridor is due to tourism, and improving accessibility to recreational sites should be considered as an important part of the corridor plan.

Section / Introduction

THE INFORMATION PRESENTED in the US 26 Corridor Plan is a compilation and summary of the background investigations, public participation input, and improvement recommendations that were generated during the corridor planning process. Documentation of the US 26 Corridor Plan is presented in five sections, including this introductory section.

- Section 1 serves as a prologue to the US 26 Corridor Plan. A general description of the study area is included with designations of segment boundaries that will be used throughout the report. The purpose and goals of the corridor plan are also described in Section 1 to define the overall vision of the plan.
- Section 2 provides a review of the existing transportation, land use, and environmental conditions, as well as a profile of community demographics. The data presented in this section form the factual basis for forecasting and analyzing the performance of the transportation system over a 20-year planning period.
- Section 3 describes the expected future transportation demand and the impacts associated with traffic growth on US 26 over the next 20 years. The future traffic volume forecasts reveal areas where transportation system deficiencies are likely to occur.

- Section 4 summarizes the public involvement process. Public participation events took place at various stages of the corridor plan's development. The methods used to gain public opinion on the plan and the screening criteria developed to identify feasible alternatives are included in this section.
- Section 5 covers the development of improvement alternatives, from selecting preliminary alternatives through determining the priority list of preferred alternatives. The rationale for choosing the preferred alternatives is included along with an access management refinement plan for Segment 1.



Highway 26 at the Wyoming State Line.

1.1 Corridor Plan Background

In September 1999, JRH Transportation Engineering entered into an agreement with the Idaho Transportation Department to provide corridor planning services for the US 26 corridor extending approximately 70 miles from State Highway 43 at Beeches Corner in the west to the Wyoming border in the east. The 20-year plan for the US 26 facility was developed in a collaborative manner involving local citizens, stakeholders, and agencies to identify strategies, actions, and priorities for the management and improvement of the highway. The corridor planning process is multi-modal and looks at all transportation modes: public transportation, air, rail, bicycles, pedestrians, and freight, as well as the private automobile. The plan also considers and addresses the role of the corridor in terms of economic vitality, the environment, right-of-way preservation, and the impacts of local land use determinations on corridor operations and safety.

The US 26 corridor provides two lanes of travel over the majority of the study area and is classified as a Principal Arterial Highway in the *Idaho State Highway Plan*. US 26 is also designated as a National Highway System route. The Intermodal Surface Transportation Efficiency Act (ISTEA) created the National Highway System to provide a strategic system of highway routes of nationwide significance.

The US 26 corridor is largely rural in nature, but it serves relatively heavy traffic within the Idaho Falls metropolitan area on the west end of the corridor. The corridor provides an important recreational link between Idaho Falls and the communities and rural areas located along the South Fork of the Snake River. It

accommodates heavy tourist traffic, local traffic, and the majority of freight movement between Jackson Hole, Wyoming, and the Snake River Plain. US 26 serves the needs of commuters, farmers, ranchers, and goods movement, while providing a means of access and local circulation to the communities positioned on the corridor. The highway also provides access to Jackson Hole and the surrounding ski resorts. Balancing these competing interests and needs is the goal of the US 26 corridor planning process.

The Highway 26 corridor is largely rural in nature, but it serves relatively heavy traffic within the Idaho Falls metropolitan area on the west end of the corridor.

1.2 Corridor Segmentation

The US 26 corridor extends over 70 miles of diverse terrain. Analyzing such an extensive area is a complex task. Analysis and discussion of the corridor as a whole is better managed by dividing it into four segments. Segments were chosen using logical political boundaries, landmark roadways, and topographical features. An effort was made to designate segments of roughly the same length, to avoid clustering issues in any one segment. Figure 1 shows the US 26 corridor study area, including segment boundaries.

Segment 1 - ID 43 to US 26B

Segment 1 extends from ID 43 to the Ririe cutoff at US 26B. Most of the segment to the Ririe cutoff is agricultural land including pasture, cropland, grazing, and ranching with associated farm or ranch housing units. Additionally, there are clusters of residential development, each containing four or five housing units. This segment serves heavy commuter traffic to and from Idaho Falls during morning and evening peak hours. The level of congestion on this segment is increasing, and multiple private access points are problematic.

Segment 2 - US 26B to Granite Hill

Segment 2 extends from the Ririe cutoff to the base of Granite Hill in the Conant Valley. This segment is primarily agricultural, with a rural residential subdivision at the far eastern end of the segment. Slow-moving agricultural vehicles can create congestion during the summer months.

Segment 3 - Granite Hill to Palisades Dam

Segment 3 extends from the base of Granite Hill to the road over the Palisades Dam. This segment has many issues concerning growth and development of recreationally based tourism. Segment 3 has alignment and sight-distance inadequacies. US 26 also serves as a local circulation road and "Main Street" for the Swan Valley/Irwin area.

Segment 4 - Palisades Dam to Wyoming State Line

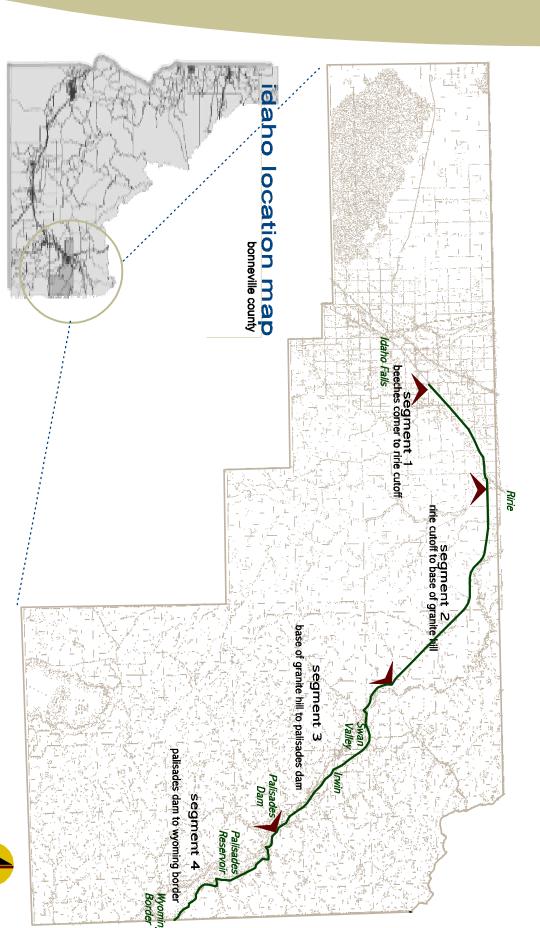
Segment 4 begins at the Palisades Dam and extends to the Wyoming State line. This area is developed almost exclusively with vacation or "second" homes. The segment has shoulder width inadequacies as well as sight distance limitations at several intersections.



US 26 is vital to transporting agricultural equipment and commodity.

US 26 corridor plan







1.3 Purpose and Need

In November of 1999, ITD held a stakeholder workshop that was designed to guide the creation of the US 26 Corridor Plan Purpose and Need Statement and to identify Corridor Plan Goals and Objectives. Together, the purpose and goals provide an overall vision of the corridor plan intent and the recommended methods to achieve those ends. The purpose of the US 26 Corridor Plan is:

- To identify alternatives that provide for a safe and efficient transportation system for movement of people and goods within and through the corridor;
- To preserve and protect the environment, built and natural, and improve the interrelationship between land use and transportation;
- To provide a framework for future transportation project selection and development; and
- To recognize that the local economy of the eastern corridor from the Ririe Business Loop to the Wyoming border is heavily dependent on a natural and clean environment, and that alternatives developed for the corridor plan must preserve this relationship.

The purpose of the US 26 Corridor Plan responds to the many diverse interests in the corridor as identified through stakeholder interviews, discussions with ITD and local agency staff, public open houses held on the corridor, observations made through the environmental scan, and findings of the existing conditions report. Need for the corridor plan is multifaceted, including the following categories:

Safety Needs – While the severity rate of accidents on many portions of US 26 is below the accident base rate for the State of Idaho, the segment from Highway 43 to Ririe is higher. There have been five fatal accidents on US 26 since 1996. In addition to this issue, the plan will evaluate winter road maintenance practices, access management, and the demand of surrounding land uses to recommend safety improvements.

Traffic Needs - The US 26 corridor serves as a commuter corridor as well as a tourist route. The corridor experiences a great degree of seasonal fluctuation in traffic volume and type with summer peak volumes approximately 3.5 times greater than winter lows. Growth in summer traffic is accompanied by slower-moving recreational vehicles in the traffic stream. The plan must balance the needs of commuters and tourist traffic and make recommendations to improve the highway for diverse users.

Development Needs – The area from the Granite Hill Summit east to the Wyoming state line is experiencing a continuing increase in recreational development. Second homes, resort developments, tourism services, and improved recreational access points are impacting the highway. A new resort at the South Fork Lodge is being developed which will have approximately 35 units, a spa, a restaurant, a fly fishing shop, and full guide services. In addition, second home development in the Swan Valley area is increasing.

Local Needs –The communities bordering the US 26 corridor have an economic livelihood that is connected with both the highway and a strong natural and clean environment. Recent developments along the corridor, and their associated impacts, may be affecting the environment and the local economic base. Local development patterns along the corridor require safe passage along and across the highway for all users, including bicyclists, pedestrians, equestrians, and wildlife.

These factors justify the need for a corridor plan that addresses diverse issues while balancing the competing interests on the corridor.

1.4 Goals and Objectives

Following are the Corridor Plan Goals and Objectives as developed from input gained at the November 1999 stakeholder workshop. The goals categorize corridorwide concerns and issues raised by the public and provide a framework for developing plan recommendations. The objectives are intended to serve as guidelines to meet the goals.

Goal I - Improve the safety and efficiency of the movement of people and goods in the US 26 corridor.

Objectives:

- A. Add turn bays.
- B. Improve corridor geometrics (especially Snake River to Rainey Creek).
- C. Add capacity where needed.
- D. Improve winter maintenance (especially from the rest area to Idaho Falls).
- E. Add safe crossings (vehicular, non-vehicular, agricultural).
- F. Add shoulder improvements.
- G. Improve intersection geometrics (especially at Highway 31).

Goal II - Accommodate the traffic impacts of seasonal, recreational, and year-round growth and produce a package of improvements and management strategies for use in the project selection and development process for US 26.

Objectives:

- A. Develop a mechanism to review new land uses in coordination with local governments.
- B. Continue to monitor growth and capacity needs in the corridor.
- C. Accommodate anticipated increases in commuter trips.
- D. Preserve agricultural access to the corridor.
- E. Ensure that the corridor plan is consulted in project selection and development as required in the ITD Board Policy A-09-04 "Corridor Planning for Idaho Transportation Systems."

Goal III - Preserve and enhance the environmental uniqueness of the corridor to help maintain a strong economic base east of Ririe.

Objectives:

- A. Minimize impacts on sensitive resources such as wetlands, fisheries, wildlife, and archaeological and historic sites.
- B. Mitigate impacts of highway improvements on sensitive resources.
- C. Preserve the environmental resources to maintain the recreation-oriented economic viability of the area.
- D. Improve accessibility to natural resources for recreational users.

The Highway 26 Corridor plan addresses diverse issues while balancing the competing interests on the corridor.

Section 2 Overview of Existing Transportation, Land Use / Community, and Environmental Conditions

THE EXISTING CONDITIONS PORTION of the corridor plan provides a complete picture of the current transportation system on US 26 along with supplemental information on land uses and environmental conditions on the corridor. Existing conditions data form the factual basis for forecasting and analyzing the performance of the transportation system over the 20-year corridor planning period.

2.1 Existing Transportation System

The US 26 transportation system is made up of a number of separate, but equally important, elements. The data summarized in the following paragraphs cover a full range of transportation elements, including geometric and physical characteristics, operational conditions, and alternative transportation modes. Most transportation system data were obtained from the Idaho Department of Transportation (ITD). Every year ITD completes an extensive data collection process in cooperation with the Federal Highway Administration's Highway Performance Monitoring System. These data were made available for use in the US 26 Corridor Plan.

Highway Geometrics

Highway geometrics include physical characteristics such as roadway width, highway alignment, and pavement condition. Geometric design features contribute to operational characteristics and can be part of comprehensive solutions to traffic problems.

Travel Lanes

The US 26 route is primarily a two-lane rural highway within the boundaries of the corridor plan. Travel lanes are 3.6 meters (12 feet) wide as recommended by AASHTO for rural highways. In areas with high levels of development and traffic volumes, two-lane highways can experience operational friction caused by a lack of passing opportunities and by delays as drivers wait behind left-turning vehicles. The need for additional passing opportunities and left-turn bays was reviewed as part of this corridor plan.



Turning left into this rest area requires stopping in the passing lane.

The AASHTO manual recommends a minimum passing sight distance of 700 meters (2,300 feet) for a design speed of 65 mph. ITD maintains records of passing sight distance, cataloging the percentage of highway with at least 1500 feet of available passing sight distance. This data is submitted to the Federal Highway

Administration's Highway Performance Monitoring System and is used to identify areas with limited passing opportunities. Table 1 lists the percentage of individual roadway sections on US 26 with passing sight distance greater than 1500 feet. Sections with low percentages indicate areas with limited passing opportunities.

Table 1: Percent Passing Sight Distance over 1500 Feet

Corridor Segment	Highway Section (MP — MP)	% Passing Sight Distance > 1500 Feet
I	338.440 - 343.355	100%
I	343.355 - 347.500	90%
I	347.500 - 348.000	4-lane section
I - 2	348.000 - 352.284	92%
2	352.284 - 356.750	64%
2	356.750 - 358.300	Passing Lane
2	358.300 - 362.228	78%
2	362.228 - 367.500	73%
2	367.500 - 370.000	Passing Lane
2 - 3	370.000 — 372.900	Data Not Available
3	372.900 - 376.950	Passing Lane
3	376.950 - 381.419	76%
3	381.419 - 386.970	87%
4	386.970 - 389.200	39%
4	389.200 - 391.793	21%
4	391.793 - 395.000	33%
4	395.000 - 397.538	29%
4	397.538 - 402.500	59%

Source: Highway Performance Monitoring System, July 1999

Any highway widening project requires adequate right-of-way width to accommodate the project. Existing right-of-way widths on the US 26 corridor are within the recommended right-of-way standards for rural highways. Right-of-way widths on the highway are 36 meters (120 feet) or more for the entire corridor.

Segment 4, the portion of US 26 from the Palisades Dam powerhouse (MP 386.970) to the Wyoming border, has a 76-meter (250-foot) right of way.



Shoulders

Smooth, paved roadway shoulders offer a suitable area for bicycling and walking, and minimize the conflicts between such users and faster-moving motor vehicle traffic. Ideally, a highway shoulder is wide enough to allow a stopped vehicle to clear the travel lanes by 1 to 2 feet. On low-volume highways in difficult terrain this may not be feasible, but a minimum

shoulder width of 4 feet should be provided. Wider shoulders (6 to 8 feet) should be provided where bicycle travel is common. The existing paved shoulder width on US 26 is identified in Table 2. Despite the scenic appeal of US 26 to bicyclists, the route is not equipped with 6-foot shoulders.

Table 2: Existing Shoulder Width

Corridor Segment	Roadway Section (MP — MP)	Right Shoulder meters (feet)
	,	,
I	336.596 — 338.440	1.2 (4)
I	338.440 — 347.500	1.5 (5)
I	347.500 — 348.000	0.6 (2)
I — 2	348.000 - 358.300	1.5 (5)
2	358.300 - 362.228	1.2 (4)
2 – 3	362.228 — 374.500	1.5 (5)
3	374.500 — 375.000	0.0 (0)
3	375.000 — 376.950	0.3 (1)
3 – 4	376.950 — 402.500	0.9 (3)

Source: Highway Performance Monitoring System, September 1999.

Vertical Alignment

The length and steepness of grades on a roadway directly affect the operational characteristics of the roadway. Vertical alignment measures the amount of elevation change over a designated length of roadway. The AASHTO publication, Geometric Design of Highways and Streets, lists recommendations for maximum vertical grades on rural arterials according to the type of terrain in the area and design speed of the roadway. The three types of terrain are flat, rolling, and mountainous. The US 26 corridor traverses all three types of terrain in the study area. For a design speed of 90 km/h (55 mph), the maximum grades recommended are 4 percent on level

terrain, 5 percent on rolling terrain, and 6 percent on mountainous terrain. On US 26 no vertical grades currently exceed 5 percent. Just west of the city limits of Irwin, there is a grade of 4.11 percent, which exceeds the recommended grade for flat terrain. All other vertical grades on US 26 meet the recommended grades for the local terrain.

Horizontal Alignment

Horizontal alignment refers to the layout and curves of the highway as viewed from directly above the surface. The degree of curvature or minimum curve radius is the main physical control on a vehicle rounding a horizontal curve. The maximum allowable degree of curvature on a highway is directly related to design speed and is also dependent on side friction and superelevation of the roadway. The AASHTO manual lists the maximum degree of curvature recommended for rural highways at specified design speeds. The recommendation is also dependent on superelevation and side friction. For a design speed of 65 mph, the degree of curvature should be no more than 3.45 – 4.26 depending on side friction and superelevation of the curve. Horizontal curvature data collected by ITD on US 26 is listed in Table 3 for all curves with a degree of curvature exceeding 3.45.

Table 3: Horizontal Curvature

Corridor Segment	Roadway Section (MP — MP)	Degree of Curvature
3	375.746 — 375.820	6.750
3	375.949 — 376.054	5.000
3	376.469 — 376.564	4.000
3	377.263 — 377.471	5.000
4	387.538 — 387.644	4.000
4	388.633 — 388.663	6.433
4	388.832 — 388.930	4.000
4	389.599 — 389.713	4.000
4	390.385 — 390.586	4.000
4	390.763 — 390.861	4.000

Source: Highway Performance Monitoring System, July 1999

The above sections of roadway exceeding recommended degrees of curvature are all within segments 3 and 4 of the US 26 corridor study area. If economically feasible, realignment should be considered on these sections of roadway during any future construction projects. Proper alignment will provide for safe, continuous operation at speeds consistent with highway conditions on the rest of US 26.

Pavement Condition

ITD classifies pavement condition as Good, Fair, Poor, or Very Poor. All sections of paved highway in Idaho are assigned a Cracking Index (CI) and a Roughness Index (RI). The pavement condition is determined by the lower value of either the Cracking Index (CI) or the Roughness Index (RI). Sections of pavement on US 26 with deficient pavement conditions are listed in Table 4.



Corridor Segment	Pavement Section (MP — MP)	Roughness Index (RI)	Cracking Index (CI)	Pavement Condition
I	347.90 — 348.00	2.44	3.20	Poor
2	354.80 — 354.90	2.27	2.90	Poor
3	374.50 — 376.95	Varies*	2.40	Poor

Table 4: Existing Pavement Deficiencies

Source: Idaho Pavement Management System

US 26 currently has three sections of roadway in Poor condition. There are not any sections of pavement in Very Poor condition on US 26 at this time. The reduction of pavement deficiencies on the State Highway System is accomplished through maintenance, rehabilitation, and reconstruction as appropriate during the life of a pavement. The pavement type on US 26 is high-flexible which is used on roadways with high volumes and design speeds. High-flexible pavement provides smooth riding qualities and good skid-resistant properties.

Drainage

Drainage on US 26 is adequate on most of the highway. According to data from the Highway Performance Monitoring System, two pavement sections on US 26 within the corridor study area have poor drainage. The first section begins at milepost 338.440 and ends at milepost 339.552, just west of the Crowley Road intersection; the second section runs from milepost 386.970 to milepost 387.965,

between the Palisades Dam Powerhouse Road and Bear Creek Road.

Bridge Conditions

In the state of Idaho bridges are assigned a sufficiency rating ranging from 0 to 100 that is used to determine bridge replacement and rehabilitation needs in the state. Bridge sufficiency ratings are based on a bridge's structural adequacy, compliance with current design standards, importance for public use, and eligibility for federal bridge replacement funds. Bridge sufficiency ratings below 50 indicate that the bridge needs to be replaced. Ratings between 50 and 80 imply that the bridge is in fair condition and that rehabilitation, if cost effective, will bring the bridge up to current standards. Bridges with ratings above 80 are in good or adequate condition and are not eligible for federal funding. This information was obtained from the *Idaho* State Highway Plan.

There are eight existing bridges on the US 26 corridor within the designated study area. Bridge sufficiency ratings indicate



^{*} The CI is lower than any RI on this section and therefore determines the pavement condition.

that five of the eight bridges are in Fair condition while the other three are in Good condition. There are not any bridges listed in Poor condition on the corridor. The bridges in fair condition should be considered for rehabilitation according to need and available funding.

Table 5: Existing Bridge Ratings

Corridor Segment	Bridge	Beginning Mile Point	Sufficiency Rating	Bridge Condition
I	Willow Creek Bridge	341.995	77.9	Fair
I	Anderson Canal Bridge	345.923	66.8	Fair
I	Anderson Canal Bridge	347.742	91.6	Good
I	Eagle Rock Canal Bridge	348.105	94.1	Good
2	Birch Creek Bridge	352.060	97.5	Good
3	Swan Valley Bridge	373.604	78.7	Fair
3	Rainey Creek Bridge	376.535	74.0	Fair
3	Palisades Creek Bridge	384.265	58.3	Fair

Source: Highway Performance Monitoring System, December 1998

Access Management

Generally, sections of roadway with high average daily traffic volumes (ADT) require a low frequency of local access points for purposes of improved safety and reduced congestion and delay. Access management on US 26 is categorized by ITD as Partial Control (Type III), which requires new approaches to provide access road service only and a maximum of four existing approaches per side per mile (a maximum of three per side per mile if located in a mile-grid local road system).

The primary section of US 26 with access management deficiencies is Segment 1 between US 43 and the US 26 Business Loop to Ririe. Within this section of roadway, numerous driveways from residential, farm, and business land uses directly access US 26. An inventory of access locations on Segment 1 of the corridor was completed in response to access management concerns. Table 6 shows the number of existing access points per side of the highway per mile on Segment 1 of the US 26 corridor.

One Mile Section TOTAL **Access Points Access Points** (MP - MP)(North Side) (South Side) 338.240 - 339.0009 5 14 8 7 15 339.000 - 340.000340.000 - 341.0005 6 П 341.000 - 342.00014 6 20 9 342.000 - 343.000П 20 9 343.000 - 344.0005 14 2 344.000 - 345.0004 6 6 13 19 345.000 - 346.000346.000 - 347.0007 5 12 347.000 - 348.0009 6 15 8 348.000 - 349.2949 17 TOTAL 88 75 163

Table 6: Existing US 26 Access Points in Segment 1

Source: ITD Video Log, 1997

Access locations on several one-mile sections of US 26 in Segment 1 far exceed the maximum of three approaches per side per mile required on a Partial Control Type III highway with a complete one-mile grid.

Highway Operational Conditions

The operational characteristics of the highway are of equal importance as geometric features. Investigating operational features of the highway exposes level-of-service problems where congestion relief is needed, and indicates locations with high accident rates requiring safety improvements.

Average Daily Traffic Volumes

The ITD Transportation Planning Division estimates average annual daily traffic

volumes (AADT) on US 26 at nine locations within the corridor study area. Estimates of AADT are based on actual traffic counts that are updated periodically. One permanent count location exists on the corridor. Counter #12 is located approximately 4.4 miles east of the Ririe cutoff. In addition, counter #31 is located approximately 4 miles north of US 26 on State Highway ID 31. AADT values for a 9-year time period (1990-1998) were obtained from ITD at different locations along the corridor. The following table presents a comparison of 1990 and 1998 traffic volumes.

1990 AADT Segment Location 1998 AADT East of Hwy 43 4420 6200 Ι Τ West of US 26 Business Lp. (Ririe) 3790 4200 Between US 26 Business Lp. access points 2400 2600 2 East of US 26 Business Loop (Ririe) 2680 2100 3 West of Swan Valley 1970 3500 3 East of Swan Valley 1690 2300 3 West of Palisades 1590 2200 4 East of Palisades 1760 1900 4 West of State Line 1140 1600

Table 7: US 26 Average Annual Daily Traffic Volumes (1990-1998)

Source: Idaho Transportation Department, Transportation Planning Division

The highest traffic volumes on the corridor are on Segment 1 between Highway 43 and the Ririe Business Loop cutoff. The volumes tend to consistently decrease toward the east end of the corridor with slightly higher volumes in the Swan Valley/Irwin area.

Capacity/Level of Service

Vehicle capacity is a measure of the maximum number of vehicles that can pass over a given section of roadway during a certain time period, under prevailing roadway and traffic conditions. Level of service (LOS) provides a measure of operational conditions experienced by drivers on a roadway. The volume-tocapacity (V/C) ratio and level of service on a roadway are standard measurements of roadway congestion. V/C ratios range from 0 (no congestion) to 1.00 (severe congestion). Level of service is broken into six categories, A through F, based on the amount of traffic that can be accommodated at each level. Levels of service begin at level A representing the highest quality of service, where drivers are able to drive at their desired speed, to level F representing heavily congested flow with higher traffic demand than

available capacity. The relationship between LOS and the V/C ratio is based on methodology presented in the *Highway Capacity Manual*. An increase in V/C results in a decrease in level of service.

The *Idaho State Highway Plan* contains V/C criteria as represented in Table 8 for all roadways in the state. The V/C ratio representing at or near capacity levels of congestion correlates to a level of service D for rural two-lane highways, the minimum acceptable level of service for roadways in Idaho.

Table 8: State Highway Plan Volume/Capacity (V/C) Standards

	Near Capacity V/C Urban Rural		At Capacity V/C		
			Urban	Rural	
Interstate	0.66	0.75	0.83	0.92	
Two-Lane Highway	0.60	0.39	1.00	0.62	
Three-or-More-Lane Highway	0.79	0.75	1.00	0.89	

Source: Idaho State Highway Plan, December 1997

The 1998 volume-to-capacity ratios on US 26 within the corridor study area were obtained from ITD for analysis. Under existing traffic conditions, no sections of US 26 were found to be at or near capacity.

Intersection Turning Movements

Intersections are typically the greatest points of congestion on a transportation network due to delays caused by conflicting traffic movements. Intersection levels of service (LOS) are standardized descriptions of intersection operating conditions. Levels of service are qualitative descriptors of traffic conditions based on measures of average delay experienced by a vehicle before it is able to pass through an intersection. The level of service at an unsignalized intersection is defined in terms of control delay per vehicle, which includes the total elapsed time for a vehicle to decelerate, stop at the end of a queue, and accelerate through the intersection from the stop-controlled approach. The relationship between LOS and delay for unsignalized intersections is summarized in Table 9.

Table 9: Intersection Level of Service Criteria

Level of Service	Unsignalized Intersection Average Delay Range (seconds per vehicle)
A	≤ 10
В	> 10 to 15
С	> 15 to 25
D	> 25 to 35
E	> 35 to 50
F	> 50

Source: Transportation Research Board, 1994 Highway Capacity Manual: Special Report 209, December 1997.

ITD staff completed AM and PM traffic counts at significant intersections on US 26 on October 20, 1999. Through volumes on US 26 were estimated based on the 1998 AADT value on this section

of US 26 as reported by ITD. A one-year growth of 2.59 percent is added to the 1998 value to reach the 1999 AADT. For the level of service analysis, the PM peak-hour volume is calculated as 10 percent of



the total AADT. The peak direction of traffic flow during the PM peak hour is eastbound and accounts for approximately 60 percent of peak hour traffic volumes. The PM peak hour volumes obtained from traffic counts and through traffic estimates are shown in Figure 2. Estimates of through volumes on US 26 during the AM peak-hour are not shown, as they would be substantially lower than PM peak-hour volumes, which represent the worst-case scenario at the intersections.

Existing 1999 levels of service are shown in Table 10 for the PM peak hour at intersections on US 26 with significant traffic volumes or access issues. Only one intersection is currently operating at an unacceptable LOS. Left-turning vehicles from US 43 onto US 26 experience LOS F during the PM peak hour. Figure 2 illustrates the PM peak hour traffic volumes at the intersections studied.

An investigation of traffic conditions at this intersection was completed to determine the potential need for a traffic signal. Three separate traffic warrants from the *Manual on Uniform Traffic Control Devices* (MUTCD) were met at this intersection using data from October 1999 traffic counts. The three warrants were Warrant 6: Accident Experience, Warrant 9: Four-Hour Volumes, and Warrant 11: Peak-Hour Volume.

The Accident Experience Warrant is met when five or more accidents are reported within one year that could have been corrected by a traffic signal. At the ID 43/US 26 intersection, seven such accidents occurred in 1996, ten in 1997, and seven in 1998. Accident information was obtained from ITD. Warrant 9, Four-Hour Volumes, and Warrant 11, Peak-Hour Volume, were met using the traffic

volumes observed during the October 1999 counts.

While these warrants indicate that a signal may be needed at the ID 43/US 26 intersection, further investigation of the intersection will be required before a traffic signal is installed. The satisfaction of warrants alone is not in itself justification for a signal. Separate engineering studies should be obtained and compared with the requirements met by the warrants. The traffic signal should be installed only if it is expected to improve the overall safety and operation of the intersection.

US 26 corridor plan



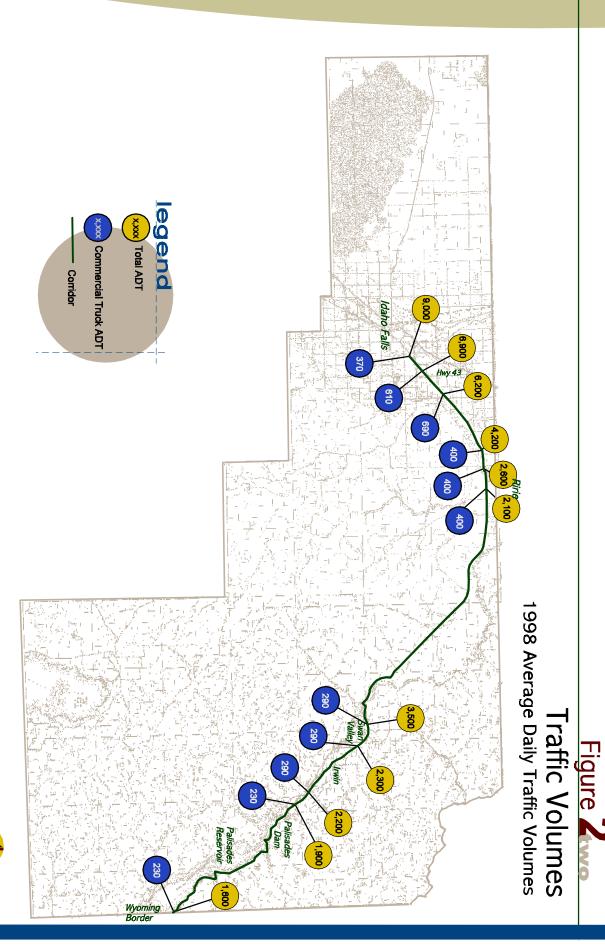




Table 10: 1999 PM Peak-Hour Level of Service

Segment 1

Location	Direction	Movement	Delay (Sec/Veh)	LOS
US 43/US 26	Northbound	Left	55.9	F
03 13/03 20	Northboand	Through/Right	16.4	C
	Southbound	Left	50.4	F
	Journa	Through/Right	16.4	 C
	Eastbound	Left	7.9	A
	Westbound	Left	8.8	A
East 45 th Street/US 26	Northbound	Left	8.2	A
	Southbound	Left	7.9	A
	Eastbound	Left	7.9	A
	Westbound	Left	8.3	A
East 55 th Street/US 26	Northbound	Left	8.2	A
	Southbound	Left	7.9	A
	Eastbound	Left	7.9	Α
	Westbound	Left	8.4	A
East 75th Street/US 26	Northbound	Left	7.9	A
	Southbound	Left	7.7	A
	Eastbound	Left	7.9	A
	Westbound	Left	7.9	A
East 85th Street/US 26	Northbound	Left	7.8	A
	Southbound	Left	7.6	A
	Eastbound	Left	7.9	A
	Westbound	Left	8.2	A
East 95 th Street/US 26	Northbound	Left	7.8	A
	Southbound	Left	7.6	A
	Eastbound	Left	7.9	A
	Westbound	Left	8.2	A
East 115 th Street/US 26	Northbound	Left	7.9	A
	Southbound	Left	7.7	A
	Eastbound	Left	8.1	A
	Westbound	Left	7.9	A

Source: JRH Transportation Engineering

Accident Statistics

Accident statistics (1996 - 1998) provided by the ITD Office of Highway Safety were reviewed to identify areas on US 26 with high accident levels. The number of injury accidents and fatal accidents was reviewed at each mile point. The results are shown in Figure 3. This figure does not show accidents that resulted in property damage only. Table 11 shows a comparison of the accident rates for each segment on the US 26 corridor with the statewide accident rate for 1998. Segment 1 between Highway 43 and the Ririe



cutoff had the highest accident rate on the corridor in 1998. The accident rate on this section actually exceeded the statewide accident rate. All other segments of the

US 26 corridor had accident rates below the statewide accident rate for rural twolane highways.

Table 11: US 26 Accidents and Accident Rates

	Tota	Total Yearly Accidents			cident Rate
	1996	1997	1998	Segment Rate*	Statewide Rate**
Segment I (338.064 — 349.294)	38	39	36	186.1	152.3
Segment 2 (349.294 — 368.520)	17	18	19	77.1	152.3
Segment 2/3 (368.520 — 372.380)	0	0	2	39.4	152.3
Segment 3 (372.160 — 386.970)	12	8	18	135.3	152.3
Segment 4 (386.970 — 402.500)	9	7	6	58.4	152.3
Total	76	72	79	112.8	152.3

^{*}Rate is per 100 million miles driven

^{**}Rate is per 100 million miles driven (State System Roads-Non Interstate) Source: ITD Office of Highway Safety

US 26 corridor plan



Numbers represent the amount of injuries, if more than one per accident

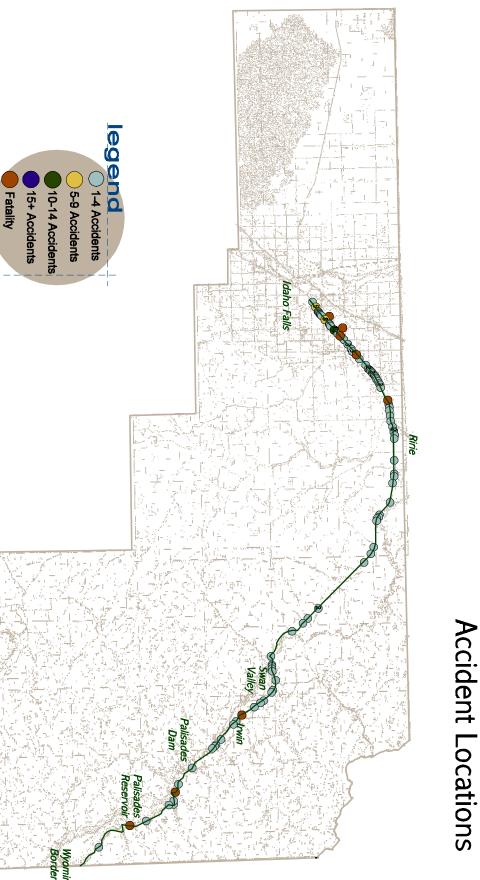


Figure 3





Truck Volumes

Based on estimates of annual average commercial traffic volumes (1991-1998) provided by the ITD Transportation Planning Division, truck traffic along the corridor has not fluctuated significantly over the past 7 years. Truck percentages of total traffic on the corridor range from 8 percent west of Swan Valley to 19 percent just east of the US 26 Business Loop to Ririe. Figure 3 shows total ADT and commercial ADT for 1998.

Seasonal Traffic Variations

Analysis of historic traffic volume data (1990-1998) from two permanent count stations in the vicinity of the US 26 corridor reveals seasonal trends in average daily traffic volumes. Permanent counter number 12 is located on US 26, 4.4 miles east of Ririe, and permanent counter number 31 is located on State Highway 31, 3.5 miles north of the US 26 junction in Swan Valley. Based on the count data, traffic volumes reach an annual high in July and a low in January. Permanent counter number 12 records traffic volumes in July as approximately 72 percent higher than the annual average daily traffic, and in January, traffic volumes drop 49 percent below the annual ADT. The traffic counter on SH 31 near Swan Valley shows similar seasonal traffic variations, with July traffic volumes being about 70 percent higher than the average ADT, and January volumes being 41 percent less than the ADT.



Beautiful views just off the corridor result in seasonal increases in traffic volumes.

US 26 corridor plan



(STC) 161 54(74) 102(105) 7(4) £ 20(41) 2(0) **1** 93(44) 85(9) **1** East 75th 4(5) 151(48) N 16(18) 34(20) O Ļ 380 2(0) 10(20) • 3(0) 9(1) 1(3) 1 28(24) 17(6) East 85th 10(1) 10(10) **+**↑**↑** §%§ Segment One Intersections PM Peak Hour Volumes ယ E. 115th / US 26 Business Loop 7(29) 15(5) 1(1) 107(48) **L** 62(106) £ East 55th 10(13)— 12(12)— 8(5)— East 95th G **←**↑↑ ĈijĞ 1(0) **1**0(2) **1**0(1) **1** <u>\$</u>85



Segment One Locator

Transportation Modes

Information on transportation modes serving the US 26 corridor was acquired by reviewing various State and local modal plans and consulting providers of the different transportation services.

Air

There are no airports located in the immediate vicinity of the US 26 corridor. Fanning Field, located in Idaho Falls, is one of seven primary airports in Idaho. Primary airports have regularly scheduled air service and enplane over 10,000 passengers annually. Fanning Field is the regional air carrier airport for eastern Idaho. There is also a community access airport in Rigby and one in Driggs.

Rail

The railroad system in ITD District 6 is comprised of the secondary Union Pacific main line extending from District 5 to Montana, and a number of former UP branch lines that are currently operated by the Eastern Idaho Railroad (EIRR). Branches of the EIRR extend from Idaho Falls to Ashton, Menan and Newdale. The branch from Idaho Falls to Newdale parallels the east side of US 26 from Idaho Falls to the US 26 Business Loop turnoff. An at-grade railroad crossing of US 26 exists just north of this intersection. According to Eastern Idaho Railroad staff, a maximum of four trains cross at this location per day, two traveling north and two traveling south.

The *Idaho Rail Plan* states that approximately one million tons of rail freight originate in the District and just over 200,000 tons terminate in this part of Idaho. District 6 rail traffic consists primarily of farm products, fertilizers, aggregates, and lumber. The Eastern

Idaho Railroad is affiliated with WATCO, Inc. of Pittsburg, Kansas.

Bicycle and Pedestrian Facilities

US 26 is designated as a Bicycle Route by the State of Idaho. However, there are sections of the highway that could be improved to meet the needs of bicyclists on the corridor. The American Association of State Highway and Transportation Officials (AASHTO) Guide for Development of Bicycle Facilities describes design practices and highway improvements to enhance the travel environment for bicyclists. On highways in rural areas, adding or improving roadway shoulders is an effective way to accommodate bicyclists and pedestrians. The Idaho Bicycle and Pedestrian Transportation Plan recommends a shoulder width of 1.8 meters (6 feet) to safely accommodate bicyclists and pedestrians. AASHTO recommends that shoulder widths be a minimum of 1.2 meters (4 feet). On roadways with speed limits exceeding 35 mph, additional width is desirable. When funding is limited, shoulders on uphill sections should be improved first to decrease conflicts between slow-moving bicyclists and faster-moving vehicles.



There are several areas on US 26 that are not bicycle-friendly.

Transit

Existing public transportation sources are limited along the US 26 corridor. Available public transportation on the corridor is centered at the western end of the study area around Idaho Falls. Public transportation includes:

- C.A.R.T., Inc. (Community and Rural Transportation) - deviated fixed route service in Idaho Falls and Rexburg; demand response service for the general public in a 12-mile radius of Idaho Falls and the southern portion of Fremont County.
- Eastern Idaho Special Services Agency

 organized volunteer service for
 seniors in an area bounded by
 Rexburg, Ririe, Ammon, Idaho Falls,
 and Lewisville.
- Tri-City Transportation demand response service for seniors in Rigby, Ririe, and Roberts.

Organizations providing services that do not meet the definition of public transportation include medical establishments such as Idaho Falls Care Center and Good Samaritan Center. The Department of Health and Welfare provides rides with State-owned vehicles through its regional office and, with the help of Vocational Rehabilitation, they fund transportation services through the reimbursement of client-provided trips. Other organizations include private providers like Holliday Motor Coach, which provides charter service, and Easy Way Taxi and Delivery.

Utilities

Utilities in the US 26 Corridor area include telephone, electric, and gas lines. Telephone companies include US West, Mountain Bell, Silverstar Telephone Company, and M.S.T. & T. Utah Power, a subsidiary of PacifiCorp, provides electric

services in the area, and Intermountain Gas Co. maintains gas pipelines along the corridor. According to staff of the above companies, major changes in location of these utilities are not anticipated in the future.

2.2 Land Use

An inventory of existing land-use patterns in Bonneville County and on each segment of the US 26 corridor was compiled to provide background information on the region served by the corridor. Land-use data were assembled by referring to comprehensive plans, aerial photographs, assessor maps, and visual land-use surveys. A summary of land uses and activities external to the corridor is also included, as these components can have a direct impact on corridor wide traffic operations and demand.



Much of Bonneville County is classified as forest land.

Bonneville County Land Use

Bonneville County contains more than 810,000 acres and ranks twenty-fourth in size of all Idaho counties. Agricultural uses account for 8.5 percent of its total acreage. The federal government owns over 61 percent of the county. Slightly more than one-fourth of its area is privately owned. Although less than 1 percent of the county's land is considered urbanized, its population was classified as 78 percent urban in 1996. Incorporated cities in Bonneville County include Ammon, Idaho Falls (the largest city in the county), Iona, Irwin, Swan Valley, Ucon, and part of Ririe.

The area was first occupied by the nomadic Shoshone, Lemhi, and Paiute Indian tribes in the 18th century. Early settlement began in the 1850s as prospectors, miners, packers, freighters, and pioneers migrated to the area. Gold was discovered in 1860, and towns sprang up to support mining activities. When the gold rush declined, farmers settled the area.

The area's economy is diverse, ranging from the Idaho National Engineering and Environmental Laboratory, a nuclear and high-tech research facility employing about 8,000 persons, to recreational employment such as a one-person seasonal guiding and rafting company. Major employment categories are agriculture, agricultural processing, nuclear and high-tech research, manufacturing, and tourism. The City of Idaho Falls is the retail hub for the trade market area, which includes nine Idaho counties, two Wyoming counties, and one Montana County.

Segment 1 Land Use

Segment 1 begins at the intersection of Highway 26 and Highway 43, at an unincorporated area named Beeches Corner. Some commercial, state, and federal offices, as well as a church are located in the general vicinity. The balance of the segment to the Ririe cutoff is agricultural land including pasture, cropland, grazing, and ranching with associated farm or ranch housing units. Additionally, there are several clusters of residential land use, each containing four or five housing units. A cemetery, school, and church are located at the Ririe cutoff.

The town of Ririe is included in the corridor and is found about one mile north of the cutoff. A portion of it is located in Bonneville County, but the majority of the town is in neighboring Jefferson County. Most of Ririe's development is agriculturally related, including spud processing, agricultural storage, a producers' co-operative, a parts store, and a hardware store. In addition to residential land uses, Ririe also contains two schools, offices, and neighborhood retail establishments.



US 26 is the main connection to urban services in the City of Ririe.

Land Use Map Segment 1

Segment 2 Land Use

The second segment in the corridor is from west of the Ririe cutoff to Granite Hill. Segment 2 is the second least developed portion of the corridor. The first 7 miles of the segment, up to the Snake River, consist of cropland with very few homes. A rural residential development is located near the Snake River Scenic Overlook.

Land usage continues to be ranching with ranch houses until the highway again approaches the Snake River. Another rural residential subdivision is located east of the Snake River Ranger Station.

Directly west of the ranger station is a cluster of retail development. It contains a lodge, cabins, fly-fishing shop, motel, and real estate office. The area is being converted from a small cafe and motel to an upscale fishing resort. The section of corridor area from the resort and ranger station to Granite Hill is ranch land and ranch houses.



The first part of Segment 2 consists of cropland.

Segment 3 Land Use

The portion of Segment 3 from Granite Hill to Swan Valley is agricultural, containing ranch lands and houses. Swan Valley consists of guide shops, restaurants, a country store, an inn and saloon, a post office, an American Legion post, and a church. About 160 people lived in Swan Valley in 1998, up from about 140 residents in 1990. The portion of Segment

3 between Swan Valley and Irwin also accommodates ranching activities.

Much of Irwin's land usage supports recreational activities. It has outfitters, fly shops, and a recreational vehicle park with cabins, cafes, and saloons. An auto parts and towing service is also located in Irwin. Other activities include an Idaho Transportation Department maintenance shop, a post office, school, hair salon, and veterinary clinic. In 1990, Irwin had about 100 persons. Its population increased to 130 by 1998.



The Bureau of Reclamation housing.

A 5-acre residential lot is located south of Irwin, adjacent to the Snake River. Much of the land on the south side of the highway is subdivided and platted for residential use. North of the river is agricultural land for grazing and ranch houses. This side of the segment also contains a small resort area with a motel and cabins, grocery and liquor stores, a trading post, a recreational vehicle park, a convenience store, and an antique shop. Directly to the east is the Palisades Townsite, housing for Bureau of Reclamation employees working at Palisades Dam.

Land Use Map Segment 2

Land Use Map Segment 3

Segment 4 Land Use

Segment 4 begins at the Palisades Dam Reservoir and ends at the Wyoming border. It is the least settled segment of the corridor, containing the least population and no employment. It consists mainly of seasonal housing units north of the Palisades Reservoir.



The corridor follows the contours of the Palisades Reservoir to the Wyoming border.

External Features and Land Uses

The US 26 corridor is a gateway to many recreational activities in the region, which greatly influences the amount of traffic using the corridor. The highway provides access to Teton National Park and Jackson Hole in Wyoming, as well as camping facilities, sportsman accesses for fishing, and numerous other recreational sites.

The US 26 corridor is a gateway to many recreational areas in the region, including Teton National Park and Jackson Hole, Wyoming.

Land Use Map Segment 4

2.3 Community Profile

The community profile presents demographic characteristics of each segment on the US 26 corridor. The demographic variables presented in this section include population, number of households, and employment. The existing statistics are summarized along with 20-year demographic projections and a discussion of seasonal fluctuations in population and employment. Information about the characteristics of the people and region served by the corridor is used to identify issues that could impact corridor improvements. Both the community profile and the land-use analysis are considered in projecting demands on the transportation system over the next 20 years.

Population

The 1998 population for each segment was projected from 1990 census counts for each segment. The resulting 1998 population estimates were forecast to the year 2020 by applying population growth rates to the 1998 base estimates using assumptions about future growth in each segment. Using these techniques, the total number of persons living on the corridor is forecast to increase by one-third from 1998 to 2020. The techniques used to forecast future population on each segment are discussed in the paragraphs following Table 12.

Table 12 1998 and 2020 U.S. Highway 26 Population by Segment

Segment	1998 Population	2020 Population	Population Change	% Change
I	1,532	1,924	392	26%
2	281	398	117	42%
3	734	1,080	346	47%
4	20	20	0	0%
TOTAL	2,567	3,422	855	33%

Source: Intermountain Demographic

Segment 1 - Segment 1 had the most residents in 1998 and is forecast to have the largest numerical increase over the next 20 years, gaining almost 400 persons. This segment includes the City of Ririe and a portion of Bonneville County. Ririe's 1998 population was provided by the U.S. Census Bureau. Population for the remainder of the first segment is based on the 1990 census count and 1998 census bureau population estimates for all of Bonneville County, its incorporated cities, and the incorporated area of the county.

When the 2020 population forecast for Segment 1 was prepared, Ririe's population was predicted to remain constant from 1998 to 2020. The zero-growth assumption is based on past long-range and short-term population trends. Ririe's population remained unchanged in both the 1970 to 1990 and 1990 to 1998 time frames.

The population forecast for the remainder of Segment 1 is based on population forecasts found in the 2000, 2005, 2010, and 2015 Employment, Population, and Households prepared for the Bonneville Metropolitan Planning Organization (BMPO). Forecasts in this report were made for all of Bonneville County, for each incorporated city within the county, and for the unincorporated area of the county. The population trend for the balance of Bonneville County in the demographic report was extrapolated to 2020 and applied to that portion of Segment 1 located in Bonneville County.

Segment 2 - All of Segment 2 is located in the unincorporated portion of Bonneville County. The methodology used to prepare the 1998 population estimate and 2020 forecast for Segment 2 is similar to that used to prepare the information for the

Bonneville County portion of Segment 1. The 2020 forecasts are based on the population gains forecast for the unincorporated area of Bonneville County projected in the BMPO's demographic report.

Segment 3 - Segment 3 includes the cities of Irwin and Swan Valley, as well as a part of the unincorporated county. The 1998 population estimates for the two cities come from the census bureau. The 1998 population estimate for the rest of the segment is based on the 1990 census block inventory and 1990 to 1998 population change occurring in the rest of the unincorporated county.

The 2020 population forecast for the third segment is based on individual forecasts for the cities and the remainder of the segment. Irwin and Swan Valley's population forecasts are based on rates of population gain occurring from 1990 to 1998. Those respective rates of increase are expected to continue for the forecast period. Population gains in the remainder of the segment were based on the population forecasts in the BMPO demographic report.

Segment 4 - Population in the fourth segment is forecast to remain the same from 1998 to 2020. Segment 4 is sparsely populated, with almost all (96 percent in 1990) of its housing units used for seasonal occupancy. Segment 4's population is substantially lower than any other segment on the corridor.

Households

The number of households on the corridor is expected to increase by one-third, similar to the population growth experienced on the corridor. Segment 1

contains the largest number of households currently and in the future. However, the

largest total increase in households is forecast to occur in Segment 3.

Table 13: 1998 and 2020 U.S. Highway 26 Households by Segment

Segment	1998 Households	2020 Households	Household Change	% Change
I	504	623	119	24%
2	92	129	37	40%
3	274	404	130	47%
4	8	8	0	0%
TOTAL	878	1,164	286	33%

Source: Intermountain Demographics

The 1990 household inventory for each segment is based on census bureau counts for individual blocks. The 1990 to 1998 household gains in each segment are based on population increases within the segment. Household data for each segment was calculated by determining the 1990 to 1998 population change for a segment and dividing that population change by a persons-per-household ratio to determine the change in households for the same time. The 1990 to 1998 incremental change in households was added to the 1990 base to reach the 1998 household estimate for each segment.

This method was also used to calculate household change from 1998 to 2020. The population change within a segment from 1998 to 2020 was divided by a persons-

per-household ratio to determine household change for the forecast period. The net change in households was added to the 1990 base to complete the 2020 forecast. Persons-per-household ratios in each segment were assumed to remain constant in the forecast period.

Employment

Employment in the corridor was 755 people in 1998 and is forecast to be 875 by 2020, a gain of 120 employees. The largest single concentration of employment is in the City of Ririe, with an estimated 560 employees. Employment in Segment 1, with Ririe, and Segment 3, with Irwin and Swan Valley, is forecast to experience the largest gain, with each segment increasing by about 55 employees over the 20-year planning period.

Table 14: 1998 to 2020 U.S. Highway 26 Employment by Segment

Segment	1998 Employment	2020 Employment	Employment Change	% Change
I	640	694	54	8%
2	15	26	П	73%
3	100	155	55	55%
4	0	0	0	0%
TOTAL	755	875	120	16%

Sources: Intermountain Demographics, Idaho Department of Labor

Employment by segment for 1998 was provided by the Idaho Department of Labor. Employment in the corridor is assumed to increase at the same rate as was forecast for the balance of Bonneville County, with two exceptions. Employment in Ririe was assumed to remain constant, and no employment gains were forecast in Segment 4.

Seasonal Fluctuation

The above inventory and forecasts for the US 26 corridor are for year-round

permanent residents and full-time employees. The inventory and forecasts do not reflect seasonal changes in population and employment. Summer recreational opportunities along and near the corridor result in seasonal increases in population and employment.

The summer recreational opportunities near the corridor have substantial impacts on the population and employment rates on the corridor.



Seasonal fluctuations have especially substantial influences on population and employment in Segments 2, 3, and 4 in the US 26 corridor. In April of 1990, there were slightly more than 800 housing units in those segments. Almost 60 percent of those units were vacant during the offseason month of April, with vacancy rates ranging from 35 percent in Segment 2 to 96 percent in Segment 4. The seasonal vacancy rate may increase over time as the area continues to be "discovered." The vacancy rate could become closer to 70

percent, as is the case in highly developed resort areas.

Seasonality does not have a sizeable effect on population and employment in Segment 1, which had a housing occupancy rate of 92 percent in the month of April. In a housing market where supply and demand are in equilibrium, the vacancy rate for owner housing units is generally between 2 and 3 percent. The vacancy rate for apartments is normally slightly higher at about 5 percent

Table 15: April 1990 U. S. Highway Housing Unit Inventory

Segment	gment Total Housing Units Occupied Housing Units Vacant Housin				
2	124	81	43		
3	530	243	287		
4	158	6	152		
TOTAL	812	330	482		
Percentage	100%	40%	60%		

Source: Intermountain Demographics



Cabins and second homes are popular in the Palisades area.

The seasonality factor is expected to become more extreme in the later years of the 20-year forecast period as "babyboomers," born between 1946 and 1964, begin to retire. Many of those retirees will live in second homes for longer parts of the year. Current levels of tourism will impact future levels of seasonal population as future retirees are expected to live permanently and part-time in areas visited while on vacation.

Employment in the corridor is also seasonal, with the summer months having the highest levels of employment. Full-and part-time employees such as guides, clerks, waitpersons, and motel staff are added to the local work force in response to tourism. In the off-season many retail establishments are run with minimal staff.

2.4 Historical and Cultural Sites

The scan for historical architectural and archaeological resources on the corridor consisted of both records research and field reconnaissance. The records research consisted of a review of archaeological and architectural records held by

- National Register of Historic Places for Bonneville County;
- State Historic Preservation Office (SHPO), Boise, Idaho, records of cultural resources within a one-half mile corridor on either side of U.S. Highway 26; and
- U.S. Forest Service for forestlands along U.S. Highway 26 held by the Targhee National Forest, Palisades District, and St. Anthony, Idaho.

The field reconnaissance consisted of driving the highway route and visually scanning for areas of potential cultural resource issues such as historic buildings and bridges and potential archaeological site locations. Photographs were taken to provide an overview of changes in the terrain, and of locations of interest for historic resources.

Segment 1 - There are no recorded cultural resources in Segment 1, although some potential architectural resources were noted during reconnaissance. The area has been heavily used for agriculture for more than 100 years and may contain additional historic resources. Undisturbed archaeological resources are less likely, although there is potential for buried deposits in the floodplain environment of Willow Creek.

Segment 2 - The few recorded architectural resources in Segment 2 relate to the history of agriculture and ranching in the region. There are also a number of unrecorded historic resources in the Willow Creek and Antelope Flat areas. Native American archaeological deposits could also be present within the highway corridor, although none have been recorded to date.

Segment 3 - Segment 3 contains the greatest number of recorded Native American archaeological resources of any of the four in the study area, possibly because of the many federal lands in the area where archaeological surveys have been required in the past. In addition, more such resources are likely to be present in unsurveyed portions of the corridor. The corridor also contains recorded architectural resources, including a number of historic cabins dating to the late 19th and early 20th centuries. Unrecorded historic buildings are present in the community of Irwin and throughout Swan Valley. Palisades Dam will qualify

for consideration as a historic resource beginning in the year 2001.



Palisades Dam will qualify as a historic structure in 2001.

Segment 4 - Segment 4 contains only one identified cultural resource. The segment is located primarily on federal land on a narrow strip between Palisades Reservoir and the steep slopes of the Caribou Range. One historic resource has been recorded near the Wyoming border. Archaeological resources are less likely along most of this segment than in other segments on the route because of the steep slopes. However, there is potential for archaeological resources in association with the creeks and canyons, for rock features upslope of the highway, and for deeply buried resources underlying reservoir sediments. No potential architectural resources were evident during reconnaissance. The Palisades Reservoir area may also contain important paleontological deposits.

2.5 Environmental Resources

An environmental scan of the US 26 corridor was completed consisting of a review of agency documentation and a visual reconnaissance of the highway corridor for biological and cultural resources that could potentially be affected

by actions planned for the highway corridor; and for waterways and floodways, land ownership, and potential hazardous materials sites. Information on all these resources or issue areas provides a context within which informed decisions can be made as part of the highway corridor planning process.

Each of the corridor segments was reviewed visually during a driving reconnaissance of the corridor performed by SAIC environmental analysts on October 18 and 19, 1999. The visual data for each resource or issue area were combined with agency and other published data and documentation to identify potential areas of environmental concern. The following paragraphs summarize the environmental resources found in each segment of the corridor. Detailed environmental scan results are located in the Technical Appendix.

Segment 1 - In Segment 1, the corridor traverses the eastern limits of the Snake River Plain Volcanic Province. In this region, the landscape is a broad, flat plain textured by stream channels and sloughs draining from the southeast. Here rich, deep volcanic soils and alluvial washout from nearby mountains historically supported sagebrush-dominated shrubsteppe habitat, but now agriculture is nearly continuous within the corridor along both sides of US 26. For flood control and agricultural reasons, most stream courses are channelized or diverted into canals. Flows are regulated well upstream of the corridor. As the arching corridor turns to the east, Segment 1 ends and Segment 2 begins at the Ririe cutoff.

Segment 2 - Segment 2 is a zone of physiographic, ecological, and climatic transition along the corridor. What had

been a relatively flat, agriculturedominated plain tipped to the west gradually becomes rolling as the Snake River Plain's influence fades. Underlying basalt deposits are replaced by a broad zone of rhyolite and welded tuff. Further along Segment 2, the Basin and Range fault-block processes begin to dominate the landscape and elevation continues to increase. This transition is especially visible in a cross section from the rest area east of Poplar. The highway begins to skirt the rolling shoulders of the foothills of the Caribou Range to the south. As the highway corridor converges on the river corridor of the South Fork of the Snake River, gentle draws are interspersed between continuous agriculture, and often support zones of willow-dominated riparian habitat. These draws permit the movement of water and wildlife between upland mountain forests and the river to the north. Throughout this segment's progression eastward, biological diversity and abundance increases. The more desert-like plain grades into a cooler, wetter climatic zone. With the road cut east of Granite Creek, the transition is complete and Segment 2 ends.

Segment 3 - Segment 3 begins at the base of the road cut grade at the beginning of Conant Valley. The highway corridor has arched southeastward by this point. Conant Valley and immediately adjacent portions of the South Fork of the Snake River support broad wet meadows, grassy fields, and wetlands. An abundance of wildlife and plants, including rare plant species, thrive. Rich organic soils and moisture permit livestock and agriculture. Where the highway corridor crosses the South Fork of the Snake River, it enters a substantial cottonwood-dominated riparian zone before skirting side channels and wetlands associated with the South Fork of the Snake River and entering Swan Valley. Swan Valley is a sediment-filled graben bounded to the north by the Snake River Range and to the south by the Caribou Range. Meandering creeks and wetland areas draining toward the south characterize the western portion of the valley setting. Natural vegetation and habitat have been replaced by agriculture and other development along the highway corridor through much of this area. With the road grade approaching Palisades Dam, the next transition of the highway corridor begins and Segment 3 ends.

Segment 4 - The crest of Palisades Dam is the beginning of Segment 4 and the entrance of the highway corridor into mountainous, forested habitat along the north margin of Palisades Reservoir. The highway rises, falls, twists, and turns as it passes through lodgepole pine-dominated mixed forest interspersed with stands of aspen. Numerous stream channels, serving as important habitat for cutthroat trout, are crossed. Segment 4 ends as the highway corridor passes onto grassy, shrubby bottomlands at the head of the reservoir and crosses the Wyoming border.



Much of the corridor runs through the Targhee National Forest.

2.6 Environmental Issues

The principal purpose of the environmental scan is to characterize existing environmental conditions and determine whether there are significant environmental issues, resources, constraints, or fatal flaws that could influence identification and development of planning alternatives. The following paragraphs analyze the results of the environmental scan and identify significant issues for alternative development in the corridor plan.

Segment 1 - No biological resource issues were identified for this segment. Much of the landscape has undergone extensive agricultural conversion. Streams are regulated and diverted for flood control and irrigation. Although the USGS maps of floodprone areas include the entire Willow Creek floodplain, later NFIP and FEMA maps do not identify 100- or 500-year floodplains within Segment 1, presumably because of stream channelization. No known potential hazardous sites exist within this corridor segment.

Segment 2 - Segment 2 represents a transition from an area of agricultural development with few remnants of native habitat, to the South Fork of the Snake River and the threshold of the Greater Yellowstone Ecosystem with a high level of species richness and abundance. The river corridor system is considered an area

of critical environmental concern (ACEC) by the U.S. Fish and Wildlife Service (USFWS). The river supports native cutthroat trout and a substantial population of bald eagles. USFWS places certain restrictions on construction related to bald eagle nesting. These restrictions are locality specific and include survey requirements, distance restrictions, and timing of construction restrictions. Construction activities are restricted to distances greater than 800 meters from active nests. Although timing varies seasonally, construction activities may be restricted to times outside of the active nesting period from mid-June to mid-August. Bald eagles are more susceptible to disturbance early in the nesting period.

Small drainages crossing the highway near the end of the segment provide wildlife with movement corridors between the South Fork of the Snake River and the forests of the Caribou Mountains. Wildlife crossing can be expected along the entire eastern third of this segment. The eastern end of the segment enters into an area of known habitat and occurrence of Ute ladies'-tresses. This rare plant was first discovered in Idaho in 1996 and appears to have a very restricted distribution and narrowly defined habitat requirements. This species will be a consideration for all project planning in the area.

An environmental scan is conducted to determine existing environmental conditions that may impact the development of alternatives.

Segment 2 includes several floodways associated with Willow Creek, Birch Creek, the Snake River, Antelope Creek, and Granite Creek. No wetlands have been identified along the segment; however, all stream crossing would need to be investigated prior to any specific actions. No known potential hazardous sites exist within this corridor segment.

Segment 3 - Segment 3 contains a high number of localities in which protected species occur. The highway crosses areas of wetland and wet meadow habitat in Conant and Swan Valleys. Ute ladies'-tresses are known to occur between Granite Hill and Swan Valley within this segment. At the Snake River crossing, the highway corridor enters substantial cottonwood riparian habitat.

The beginning of the corridor crosses an important wildlife movement corridor for ungulates and small and medium-sized mammals wintering along the river. Large carnivores would also be expected to live in this area. Near the end of Segment 3, streams supporting important native cutthroat trout fisheries are crossed. All stream crossing construction or improvement activities will need to consider native cutthroat trout. The South Fork of the Snake River drainage contains some of the last unhybridized remnant populations of native cutthroat trout in existence. These trout spawn in small streams and use the South Fork of the Snake River as a movement corridor supporting metapopulation structure. Any modification or new development to U.S. Highway 26 stream crossings may have a significant impact on this species. Projects will require focused, detailed analysis of potential impacts to fishery habitat and populations and identification of

mitigation measures and Best Management Construction Practices.

Segment 3 contains extensive floodways in Swan Valley and along the Snake River to the north. Smaller floodways are associated with Palisades Creek. No known potential hazardous sites exist within this corridor segment.

Segment 4 - Segment 4 enters forest habitat along Palisades Reservoir. The forest is rich in game and non-game wildlife species (species include mule deer, elk, moose, small mammals, martin, fishers, raccoons, striped skunks, porcupines, mink, bobcats, black bear, etc.). All stream crossings are important for native cutthroat trout (see discussion for Segment 3). Bottomlands at the western end of the corridor serve as winter range for elk. USFS Guidelines for protected and sensitive species may influence project planning in this segment.

Floodways in this segment are associated with the creeks and canyons that drain into the reservoir, as well as at the edge of the reservoir. No known potential hazardous sites exist within this corridor segment.



The US 26 corridor travels through very sensitive environmental areas.

Section 3 Expected Future Transportation Demand and Corridor Performance Deficiencies

3.1 Transportation Demand

THE FOLLOWING PARAGRAPHS discuss the impacts associated with traffic growth on US 26 over the next 20 years. The potential effects of traffic growth on the function, capacity, and safety of the corridor are quantified in tables listing future levels of service and Average Daily Traffic volumes. The existing transportation system is evaluated based on its ability to support forecasted travel demand on the corridor. A description of the technical methodology used to forecast traffic growth and circulation on the US 26 corridor over the next 20 years is also discussed.



The urban portion of US 26 suffers from congestion and intense land use development, contrasting the rural sections.

Methodology

The primary factor in determining traffic forecast methodology is the type of data available for the analysis. The traffic volume data available on US 26 includes Average Annual Daily Traffic volumes (AADT) estimated by the Idaho

Transportation Department (ITD) at nine locations along the corridor. Estimates of AADT are based on actual traffic counts that are updated periodically. ITD provides monthly records of ADT at two permanent count locations on the corridor, #12 and #31. Monthly counts can be used to determine seasonal variations in traffic flow. Peak-hour turn movement counts at seven intersections on US 26 from ID 43 to the Ririe cutoff were taken by ITD in October of 1999. This data was used collectively to forecast 20-year traffic growth on US 26 in 5-year increments.

As discussed in the existing conditions portion of this report, land use issues within the corridor are not expected to cause major changes in traffic patterns. Thus, the traffic forecasts are made assuming future land use and zoning patterns will be consistent with current patterns. The Swan Valley area is being developed with second homes and recreational attractions; however, major growth in this area will likely occur past the 20-year planning horizon of the corridor plan. Communities closer to Jackson Hole and the Grand Tetons, such as Driggs and Victor, will likely develop before Swan Valley experiences dramatic growth.

Growth Rates

The first task in forecasting future traffic volumes on the corridor is determining an annual growth rate. AADT data from the nine count locations on the corridor were provided by ITD for a 9-year time period (1990-1998). The AADT values at these nine locations translate into a wide range of growth patterns at different locations along the corridor. Average annual growth rates are shown in Table 16 at the nine count locations.

Table 16: U	US 26 Average	Annual Growth	Rates (1990-19	998)
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Segment	Location	1990 AADT	1998 AADT	Growth Rate
I	East of Hwy 43	4420	6200	3.83%*
I	West of US 26 Business Loop (Ririe)	3790	4200	1.28%
I	Between US 26 Business Loop	2400	2600	1.00%
2	East of US 26 Business Loop (Ririe)	2680	2100	-3.05%
3	West of Swan Valley	1970	3500	7.18%
3	East of Swan Valley	1690	2300	3.85%
3	West of Palisades	1590	2200	4.06%
4	East of Palisades	1760	1900	0.96%
4	West of State Line	1140	1600	4.24%

^{*}This average growth rate was adjusted by removing the highest and lowest AADT over the 8=year period from the average growth rate calculation. The high and low volumes were inconsistent with annual growth in the area producing unrealistic rates

Averaging the location specific growth rates in the table produces a corridor wide average annual growth rate of 2.59 percent. Applying this growth rate to the 1998 AADT volumes generates a forecast of future traffic volumes in 5-year increments to the year 2020. On US 26, using a single growth rate for the entire corridor produces more plausible future volumes than those produced using separate growth rates at individual locations. Annual growth rates exceeding 3 percent are not usually sustainable over a

long range of time, while applying a growth rate that is negative or extremely small produces long-range estimates of traffic growth that are unrealistic, considering growth potential in the area.

Forecast AADT

Table 17 shows forecasts of AADT on US 26 in 5-year increments to the year 2020 based on an average annual growth rate of 2.59 percent.

Table 17: Future AADT

Segment	Location	2000	2005	2010	2015	2020
508		2000		2010	2015	2020
I	East of Hwy 43	6,530	7,432	8,460	9,630	10,961
I	West of US 26 Business Loop (Ririe)	4,423	5,035	5,731	6,523	7,425
I	Between US 26 Business Loop	2,738	3,117	3,548	4,038	4,597
2	East of US 26 Business Loop (Ririe)	2,212	2,517	2,865	3,262	3,713
3	West of Swan Valley	3,686	4,196	4,776	5,436	6,188
3	East of Swan Valley	2,422	2,757	3,138	3,572	4,066
3	West of Palisades	2,317	2,637	3,002	3,417	3,889
4	East of Palisades	2,001	2,278	2,593	2,951	3,359
4	West of State Line	1,685	1,918	2,183	2,485	2,829

Traffic volume data from the two permanent count locations providing monthly ADT (#12 and #31) were examined to reveal seasonal variations in travel demand on US 26. Permanent counter number 12 is located on US 26, 4.4 miles east of Ririe, and permanent counter number 31 is located on State Highway 31, 3.5 miles north of the US 26 junction in Swan Valley. Based on data from 1990 to 1998, monthly traffic volumes at both locations regularly reach a season high in July and a low in January. Permanent counter number 12 records traffic volumes in July as approximately 72 percent higher than annual average daily traffic. The traffic counter on SH 31 near Swan Valley shows similar seasonal traffic variations, with July traffic volumes being about 70 percent higher than the average ADT.

Because there is such a large variation between traffic volumes in July on an average day, a separate forecast of July traffic volumes was completed. July traffic volumes were analyzed in addition to the average volumes shown in Table 2 as a "worst case scenario." Forecasts of July volumes were obtained by increasing AADT volumes by 71 percent. July volumes were calculated as being 71 percent higher than AADT throughout the corridor based on the average of the seasonal percent increases (72 percent and 70 percent) at the two permanent count locations on the highway, #12 and #31 respectively. The resulting 20-year forecast of July ADT volumes is shown in Table 18.

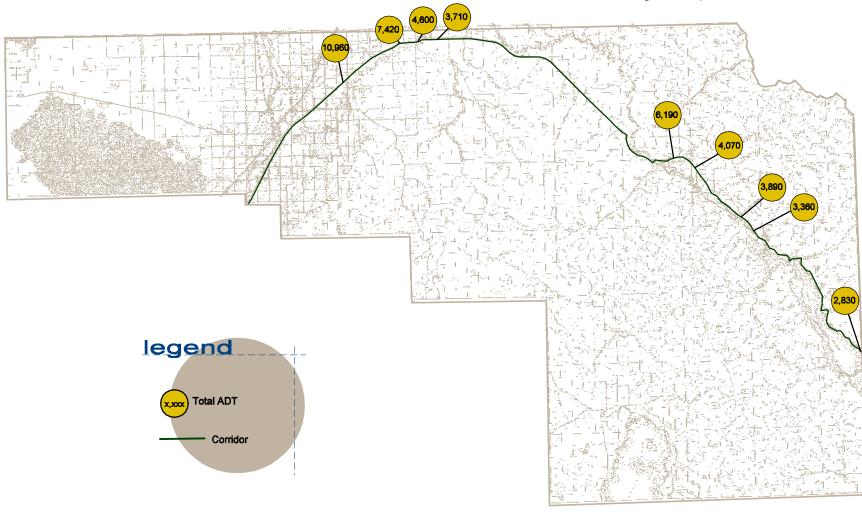
Table 18: Future July ADT

Segment	Location	2000	2005	2010	2015	2020
I	East of Hwy 43	11,166	12,709	14,467	16,467	18,743
I	West of US 26 Business Loop (Ririe)	7,564	8,610	9,800	11,155	12,697
I	Between US 26 Business Loop	4,682	5,330	6,067	6,905	7,860
2	East of US 26 Business Loop (Ririe)	3,782	4,305	4,900	5,577	6,349
3	West of Swan Valley	6,303	7,175	8,167	9,296	10,581
3	East of Swan Valley	4,142	4,715	5,367	6,109	6,953
3	West of Palisades	3,962	4,510	5,133	5,843	6,651
4	East of Palisades	3,422	3,895	4,433	5,046	5,744
4	West of State Line	2,881	3,280	3,733	4,249	4,837



Traffic Volumes









3.2 Projected Corridor Deficiencies

Some existing highway conditions, as described in Section 2, fall below current standards. Existing deficiencies include highway shoulders, vertical alignment, horizontal alignment, pavement condition, and access frequency, among others. This section analyzes future or forecast traffic volumes and identifies where and when future capacity deficiencies may occur.

Future Highway Performance Analysis

Average daily forecast traffic volumes were used to determine future traffic conditions. These were then adjusted to account for corridor and traffic characteristics. Peak-hour traffic volumes on the US 26 corridor were assumed to be 10 percent of the total daily volume, with 50 percent of the vehicles traveling in either direction. A 50/50 directional split represents ideal capacity conditions (capacity of 2,800 passenger cars per hour per lane). Additionally, ideal conditions are flat rural terrain, 12-foot wide lanes, 4 foot or greater shoulder width, low truck and RV percentages, and 90 to 100 percent passing opportunities. As documented in the Existing Conditions (Section 2), none of the rural segments of the highway conform to these ideal conditions. The LOS and v/c analysis utilized adjusted highway capacities to reflect existing deviations from ideal conditions.

Level of Service (LOS) and v/c ratio analyses rely upon characterization of the terrain and generalized land use. These factors enable the analysis to incorporate unique traffic and operational characteristics that are associated with varying terrain and land uses. Segments are classified as having Level, Rolling, or Mountainous terrain. Land uses are described as Urban or Rural.

Capacity

Chapter 8 of the 1997 Updated Highway Capacity Manual (HCM) contains details of the analysis method applied to terrain segments along the corridor. In summary, the method calculates LOS and v/c based upon terrain, grade, land use, ADT, no passing percentage, heavy vehicle percentage, lane width, shoulder width, and directional distribution. Categories of input data make adjustments to the ideal capacity of 2800 passenger cars per hour per lane (pcphpl). Most of the input for the analyses came directly from ITD's electronic highway inventory database. Segment ADT is from Table 17 of this report.

Peak-hour v/c and LOS analysis results are shown in Table 19 and Table 20, respectively. Included are forecasts for 2005, 2010, 2015, and 2020. The Plan's primary focus is on the year 2020. The intervening years are shown to provide information on project timing.

The Idaho State Highway Plan includes v/c criteria for state highways. These are shown in Table 8, page 14 of the Plan. Only segment 6, shown in bold on Table 19, is forecast to exceed the standard.

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Table 19: Forecast Volume to Capacity Ratio by Terrain Segment

						VOLUME-TO-CAPACITY RATIO		ΓΙΟ			
			Segment	Terrain		Existing	Year	Year	Year	Year	Target v/c
Seg.#	MP Start	MP End	Description	L,R,M	Area	Conditions	2005	2010	2015	2020	
1	338.24	348	Near JCT SH-43 to Eagle Rock Canal Bridge	L	Rural	0.11	0.13	0.14	0.16	0.19	0.39
2	348	368.52	Eagle Rock Canal Bridge to Top of Granite Hill	R	Rural	0.11	0.13	0.15	0.17	0.19	0.39
3	368.52	369.95	Top of Granite Hill to Bottom of Grade	М	Rural	0.13	0.14	0.17	0.19	0.21	0.39
4	369.95	372.38	Bottom of Grade to Milepost Equation	R	Rural	0.12	0.14	0.16	0.18	0.20	0.39
5	372.38	372.9	Milepost Equation								
6	372.9	373.97	Milepost Equation to Swan Valley City Limits	M	Rural	0.32	0.36	0.41	0.46	0.53	0.39
7	373.97	374.5	Swan Valley City Limits to Terrain Change	M	Urban	0.35	0.40	0.44	0.50	0.58	0.60
8	374.5	374.94	Terrain Change to Milepost Equation	R	Urban	0.21	0.24	0.27	0.30	0.34	0.60
9	374.94	375	Milepost Equation								
10	375	375.608	Milepost Equation to Swan Valley City Limits	R	Urban	0.19	0.22	0.25	0.29	0.33	0.60
11	375.608	376.128	Swan Valley City Limits to Swan Valley City Limits	R	Rural	0.18	0.21	0.24	0.27	0.31	0.39
12	376.128	376.95	Swan Valley City Limits to Change in Terrain	R	Urban	0.17	0.20	0.23	0.25	0.29	0.60
13	376.95	378.032	Change in Terrain to Swan Valley City Limits	L	Urban	0.12	0.14	0.16	0.18	0.21	0.60
14	378.032	378.325	Swan Valley City Limits to Swan Valley City Limits	L	Rural	0.12	0.14	0.15	0.18	0.20	0.39
15	378.325	378.925	Swan Valley City Limits to Swan Valley City Limits	L	Urban	0.11	0.13	0.15	0.17	0.19	0.60
16	378.925	378.984	Swan Valley City Limits to Swan Valley City Limits	L	Rural	0.11	0.13	0.14	0.16	0.18	0.39
17	378.984	379.522	Swan Valley City Limits to Swan Valley City Limits	L	Urban	0.10	0.12	0.14	0.15	0.17	0.60
18	379.522	380.11	Swan Valley City Limits to Swan Valley City Limits	L	Rural	0.10	0.12	0.13	0.14	0.17	0.39
19	380.11	380.408	Swan Valley City Limits to Irwin City Limits	L	Urban	0.10	0.12	0.13	0.14	0.17	0.60
20	380.408	381.046	Irwin City Limits to Irwin City Limits	L	Urban	0.10	0.12	0.13	0.14	0.17	0.60
21	381.046	381.175	Irwin City Limits to Irwin City Limits	L	Rural	0.10	0.12	0.13	0.14	0.17	0.39
22	381.175	381.419	Irwin City Limits to Irwin City Limits	L	Urban	0.10	0.12	0.13	0.14	0.17	0.60
23	381.419	385.145	Irwin City Limits to Irwin City Limits	L	Rural	0.10	0.12	0.13	0.14	0.17	0.39
24	385.145	385.48	Irwin City Limits to Irwin City Limits	L	Urban	0.10	0.12	0.13	0.15	0.17	0.60
25	385.48	386.97	Irwin City Limits to Palisades Dam Road	L	Rural	0.09	0.10	0.11	0.13	0.14	0.39
26	386.97	402.5	Palisades Dam Road to Wyoming State Line	М	Rural	0.16	0.19	0.21	0.24	0.26	0.60

L, R, and M are Level, Rolling, and Mountainous terrain.

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Table 20: Forecast LOS by Terrain Segment

Forecast Level of Service					Service						
S	egment		Segment	Terrain	Land	Target	Year	Year	Year	Year	Year
				Use	LOS						
	MP Start	MP End	Description	L,R,M	Area		2000	2005	2010	2015	2020
1	338.24	348	Near JCT SH-43 to Eagle Rock Canal Bridge	L	Rural	В	В	В	В	В	В
2	348	368.52	Eagle Rock Canal Bridge to Top of Granite Hill	R	Rural	В	В	В	В	В	В
3	368.52	369.95	Top of Granite Hill to Bottom of Grade	М	Rural	С	Α	Α	Α	В	В
4	369.95	372.38	Bottom of Grade to Milepost Equation	R	Rural	В	В	В	В	В	С
5	372.38	372.9	Milepost Equation								
6	372.9		Milepost Equation to Swan Valley City Limits	M	Rural	С	D	D	D	Е	E
7	373.97	374.5	Swan Valley City Limits to Terrain Change	M	Urban	С	D	D	E	Е	E
8	374.5	374.94	Terrain Change to Milepost Equation	R	Urban	С	С	С	С	D	D
9	374.94	375	Milepost Equation								
10	375	375.608	Milepost Equation to Swan Valley City Limits	R	Urban	С	С	С	С	С	D
11	375.608	376.128	Swan Valley City Limits to Swan Valley City Limits	R	Rural	В	В	C	С	С	С
12	376.128	376.95	Swan Valley City Limits to Change in Terrain	R	Urban	С	В	С	С	С	С
13	376.95	378.032	Change in Terrain to Swan Valley City Limits	L	Urban	С	В	В	В	В	В
14	378.032	378.325	Swan Valley City Limits to Swan Valley City Limits	L	Rural	В	В	В	В	В	С
15	378.325	378.925	Swan Valley City Limits to Swan Valley City Limits	Ш	Urban	C	Α	Α	В	В	В
16	378.925	378.984	Swan Valley City Limits to Swan Valley City Limits	L	Rural	В	Α	Α	Α	В	В
17	378.984	379.522	Swan Valley City Limits to Swan Valley City Limits	L	Urban	С	Α	Α	Α	В	В
18	379.52	380.11	Swan Valley City Limits to Swan Valley City Limits	L	Rural	В	Α	Α	Α	В	В
19	380.11	380.408	Swan Valley City Limits to Irwin City Limits	L	Urban	С	Α	Α	Α	В	В
20	380.408	381.046	Irwin City Limits to Irwin City Limits	L	Urban	С	В	В	В	В	В
21	381.046	381.175	Irwin City Limits to Irwin City Limits	L	Rural	В	В	В	В	В	С
22	381.175	381.419	Irwin City Limits to Irwin City Limits	L	Urban	С	В	В	В	В	В
23	381.419	385.145	Irwin City Limits to Irwin City Limits	L	Rural	В	Α	В	В	В	В
24	385.145	385.48	Irwin City Limits to Irwin City Limits	L	Urban	С	Α	Α	Α	В	В
25	385.48	386.97	Irwin City Limits to Palisades Dam Road	L	Rural	В	Α	Α	Α	В	В
26	386.97	402.5	Palisades Dam Road to Wyoming State Line	М	Rural	С	В	С	С	С	С

L, R, and M are Level, Rolling, and Mountainous terrain



The AASHTO Geometric Policy on Highway and Street Design establishes LOS performance standards for two lane urban and rural highway segments based upon terrain. These standards are included in Table 20. The 2020 analysis, also presented in Table 20, shows that eight highway segments are forecast to fall below the recommended performance standard (these are shown in bold type).

The Swan Valley segment, in particular, is forecast to operate at below the LOS standard. This is not surprising considering that Swan Valley is experiencing high levels of development with new subdivisions, second homes, and a new resort.

Intersections

Future levels of service were calculated for the same seven intersections between

ID 43 and the US 26 Business Loop cutoff to Ririe that were analyzed in the existing conditions section. Traffic growth to the year 2020 will result in increased delay at the ID 43/US 26 intersection, which already operates at LOS F under existing conditions. Using October traffic volumes, no other intersections reach unacceptable levels of service in the year 2020. Peak seasonal traffic volumes result in LOS F for minor street left-turn movements at two additional intersections, East 45th Street/US 26 and East 55th Street/US 26. Both intersections are expected to reach LOS F by the year 2015. None of the other study intersections are expected to have significant delay problems in the future.

Table 21: 2020 PM Peak Hour Intersection Level of Service

(All in Segment 1)

	July Volumes				
Location	Movement	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS
ID 43/US 26	NB - Left	6220.3	F	35,978.2	F
10 13/03 20	NB - Through/Right	6220.3	F	35,978.2	F
	SB - Left	6773.9	F	39,392.3	F
	SB - Through/Right	6773.9	F F	39,392.3	F
	EB - Left	8.6	A	9.9	A
	WB - Left	11.3	В	18.5	С
East 45 th Street/US 26	NB - Left	17.0	C	13,016.8	F
	SB - Left	14.5	В	15,446.8	F
	EB - Left	8.6	A	9.8	A
	WB - Left	9.4	A	11.9	В
East 55th Street/US 26	NB - Left	11.6	В	361.5	F
	SB - Left	10.1	В	81.8	F
	EB - Left	8.6	A	9.8	A
	WB - Left	9.5	A	12.2	В
East 75th Street/US 26	NB - Left	10.4	В	18.1	С
	SB - Left	9.5	A	14.0	В
	EB - Left	8.6	A	9.9	A
East 85 th Street/US 26	NB - Left	10.2	В	17.9	С
	SB - Left	9.4	A	22.2	С
	EB - Left	8.5	A	9.7	A
	WB - Left	9.1	A	11.4	В
East 95th Street/US 26	NB - Left	10.1	В	17.6	С
	SB - Left	9.2	A	13.4	В
	EB - Left	8.5	A	9.7	A
	WB - Left	9.1	В	11.4	В
East 115 th Street/US 26	NB - Left	9.6	A	12.6	В
	SB - Left	9.4	A	12.0	В
	EB - Left	9.2	A	11.1	В

Signal Warrants

An investigation of traffic conditions at the ID 43/US 26 intersection was completed to determine the potential need for a traffic signal installation. Three separate traffic warrants from the *Manual on Uniform Traffic Control Devices* (MUTCD) were met at this intersection using data from October 1999 traffic counts. The three warrants were Warrant 6: Accident Experience, Warrant 9: Four-Hour Volumes, and Warrant 11:

Peak-Hour Volume. The Accident Experience Warrant is met when five or more accidents are reported within one year that could have been corrected by a traffic signal. At the ID 43/US 26 intersection, seven such accidents occurred in 1996, ten in 1997, and seven in 1998. Accident information was obtained from ITD. Warrant 9, Four-Hour Volumes, and Warrant 11, Peak-Hour Volume, were met using the traffic volumes observed during



the October 1999 counts. While these warrants indicate that a signal may be needed at the ID 43/US 26 intersection, further investigation of the intersection will be required before a traffic signal is installed. The satisfaction of warrants alone is not in itself justification for a signal. Separate engineering studies should be obtained and compared with the requirements met by the warrants. The traffic signal should be installed only if it is expected to improve the overall safety and operation of the intersection.

Safety

As traffic on US 26 increases, the corridor will experience a growing number of safety problems. Safety concerns are especially significant in Segment 1, which has an accident rate higher than the statewide accident rate. The preferred alternative for the corridor is intended to vastly improve safety on the corridor by managing the accesses on Segment 1 and providing safer passing opportunities throughout the corridor. The Segment 1 refinement plan, which is included in a later section of this report, was developed to specifically address the access management issues on Segment 1 for improved safety.

The area around Swan Valley and Irwin, which is in the process of developing at this time, may also experience issues with access management in the future. In many ways this area is being "discovered" for its scenic beauty and close proximity to outdoor recreation areas. This area is beginning to develop with second homes and new housing, as well as other types of development catering to tourists and recreational users. As development pressures mount, so will the pressure to allow direct access onto US 26. Planning for the access and for county and city road

locations will allow development to occur in an orderly manner, while maintaining an high degree of safety on the highway.

There are certain areas of the corridor with high levels of traffic crossing the highway. Crossing traffic includes farm vehicles, equestrians, hikers, snowmobiles, and four-wheelers. Preferred alternatives for the corridor plan should ensure safe highway crossings for various modes of travel.

Geometry

Several intersections throughout the corridor could benefit from turn lanes. Two that have already been programmed for construction include the intersection with State Highway 31 and the intersection to the sportsman's access east of Granite Hill. Several intersections with US 26 in Segment 1 are in need of turn lane improvements to accommodate vehicles slowing in the US 26 through lanes before turning off the highway. Passing opportunities are also limited on US 26, with only a couple of hill-climbing sections and the flat areas of the highway where passing is allowed in the oncoming traffic lanes. The addition of passing lanes and pullouts would decrease delay for vehicles traveling on the corridor while increasing the safety of drivers who currently attempt to pass slower-moving vehicles without adequate passing sight distance.

The portion of US 26 between the Snake River Bridge and Rainey Creek has horizontal alignment inadequacies and high environmental sensitivity, as well as some of the most scenic views on the corridor. In addition, there are some depressions in the line of sight around Palisades Creek that need further investigation for improvement. Sight

distance at intersections along the Palisades Reservoir is very limited. Many of the intersecting streets follow creek beds, and in the mountainous terrain, many of the intersections have hillsides blocking the line of sight for intersecting vehicles. The high degree of environmental sensitivity in both of these areas may limit the number of potential solutions.

Alternative Modes

US 26 is designated as a Bicycle Route by the State of Idaho. However, the ability of bicyclists to travel on the US 26 corridor is hindered by the lack of an adequate shoulder over much of the corridor, creating a safety concern on many levels. Besides allowing bicycles and pedestrians to use the corridor with greater safety, a shoulder provides disabled vehicles a place to pull out of the traffic stream and gives vehicles a greater clear zone for maneuvering.

US 26 also serves as an important route for agricultural traffic. This highway was first developed as a farm-to-market roadway facility. The original agrarian roots are still quite strong on the highway. Preservation of the essential agricultural accesses to the corridor is necessary for the long-term viability of agriculture in the area.

Snow Removal

The portion of US 26 from Idaho Falls to the Wyoming state line normally experiences harsh winter weather. Currently, there is a perceived disparity in winter maintenance levels between the section of US 26 between Idaho Falls and Swan Valley. Some hold the view that snow is removed more quickly from the eastern end of the corridor between Irwin and the Clark Hill Rest Area than it is

from the rest area to Idaho Falls. This is partially due to high winds and fairly significant elevation and climate changes that occur between Idaho Falls and the Swan Valley area. Also, the Irwin maintenance crew share the responsibility of maintaining that section of US 26. This creates the need for good coordination.

Several approaches to improve this problem will be included in the alternatives portion of this document.



This mountain pass through the Caribou range is treacherous in winter driving conditions.

Section 4 Public Process and Alternative Screening Criteria

PUBLIC INVOLVEMENT IS A CRITICAL portion of the corridor planning process. The goal of including a strong public involvement plan in the project is to facilitate communication between the public, stakeholders, the consultant team, and ITD. Public participation events offer opportunities for the public to answer questions that are necessary to the progress of the project and which are best answered by the public and community stakeholders.

The public involvement process for US 26 included open houses held in Ririe and Irwin. Open houses were held during three different stages of the corridor planning process to ensure that public opinions and concerns were incorporated at all levels of the plan. In addition to the open houses, public involvement was achieved through mail-back response forms, brochures, flyers announcing upcoming meetings, newspaper and radio advertisements, newsletters, a stakeholder workshop, and advisory team meetings.

From the beginning of this project, the Idaho Transportation Department committed to a collaborative process that involved ITD working in partnership with the public and corridor stakeholders. This commitment and partnership ultimately produced the preferred alternative.

4.1 Open House Attendance

The development of the plan called for public participation at specific points in the planning process. In total, seven public participation events were held, one of which was a stakeholder workshop described later in this chapter. The

remaining six public events were open houses held in Ririe and Irwin at three times during the plan development process. The first set of open houses was well attended, and we asked people about the issues they had for us to consider in the plan development process. We learned a great deal about the corridor at these meetings. Issues included winter road maintenance and safety concerns at intersections and accessing driveways. Additional concerns involved localized problems with sight distance around Palisades Creek and at intersections by the Palisades Reservoir, as well as others.

Our second round of open houses was preceded by the stakeholder workshop. As a result, we presented the public with some potential solutions for discussion. Fewer people attended these open houses, but attendance was still over 25 attendees per night, and the input received allowed the consultant team to significantly expand their list of potential solutions for inclusion in Newsletter #3. The area that received the most emphasis over the two nights was Segment 1 between ID 43 and the Ririe Cutoff. People were concerned about the invasiveness of a widening, and proposed several alternatives that had less impact on properties in the immediate vicinity of the highway.

The final round of open houses was preceded by Newsletter #3, and presented the recommended solutions for each corridor segment. Attendance was lower than the two previous sets of open houses but satisfactory, and comments received were very favorable about the recommended solutions and the process used. People gave comments that they felt needed to be included in the decision-making process and were able to see from beginning to end how their input had made

a difference in the plan development process.

4.2 Stakeholder Workshop

On November 15, 1999, the US 26 Project Team met with area stakeholders to develop a purpose and need statement, as well as goals and objectives for the corridor plan alternatives. The highway's existing conditions were reviewed and issues identified to date. The group then began working through a process that was designed to identify corridor users, finalize an issues list, prioritize the list of issues, and determine the features or characteristics that the corridor should aspire to over the next 20 years. To finish the day's exercise the corridor features were then compared with the identified user groups to see if gaps in service could be determined, based on features identified.

This information was summarized into goals and objectives and presented to the Project Team on November 16, 1999. The Project Team then refined the corridor goals and objectives and used them in developing the project purpose and need statement.

4.3 Public Participation

While the open houses and the stakeholder workshop were the central features of the public involvement strategy, there were other opportunities for participation, and numerous outreach efforts. Three newsletters were developed and mailed to area stakeholders. Each newsletter had a feedback area, requesting comments about the project and issues that warranted consideration in the plan development process. Newsletter #3 asked respondents to select their preferred solutions for

corridor improvement to help in developing the recommended solutions for each corridor segment.

An intensive public information campaign was held immediately prior to the release of the newsletters, as well as prior to each public involvement event. Public information media included newspaper advertisements, direct mailings, the posting of meeting flyers, and radio and television interviews by the ITD Project Manager, as well as public service announcements and press releases from the Idaho Transportation Department.

4.4 Screening Criteria

In November of 1999, the Corridor Planning Management Team (CPMT) developed a list of five criteria for alternative screening. These criteria are:

Cost

Monetary cost is always an important issue in determining project feasibility. The alternatives were rated for cost feasibility based on anticipated cost of right-of-way acquisition, construction, and materials.

Safety Improvement

Safety on US 26 needs to be improved through the corridor plan alternatives. Alternatives that manage highway access, increase passing opportunities, or improve highway alignment and sight distance are given high ratings for increasing safety on the highway.

• Efficiency Improvement

Alternatives are ranked according to how well they alleviate conflicts between vehicles of differing speeds in the traffic stream, and how well they accommodate the movement of people and goods within and through the corridor.

• Environmental Impacts

Impacts on wetlands, historical and cultural sites, and wildlife habitat were considered.

• Local Economy Improvements

The communities that front onto this corridor have much of their economic livelihood connected with a strong and clean environment. Alternatives were assessed by potential impacts to the environment and the local economic base, recognizing that local development patterns along the corridor require safe passage along and across the road for all users, including bicycles, pedestrians, equestrians, and wildlife.

Section 5 Alternatives Development

DEVELOPING A LIST of potential alternatives is the initial step in providing usable transportation system alternatives that address the deficiencies identified on the corridor while complying with the goals and objectives established for the corridor. The preliminary list of alternatives was a compilation of several alternatives developed through suggestions at public involvement meetings and consultant recommendations. This list was used to develop a more refined list of feasible improvements and strategies based on further input collected from the public. The open exchange of ideas by area stakeholders was encouraged throughout the alternative development process to ensure that all potential solutions were considered for corridor improvements.

5.1 Description of Alternatives

The initial round of public meetings for the US 26 corridor plan generated hundreds of comments concerning issues and potential improvements on the corridor. Based on these comments, sound engineering principles, and the goals and objectives for the corridor plan, preliminary alternative improvements were developed for each segment. The preliminary alternatives are specific to each segment with at least three improvement options each, including the "do nothing" alternative for each segment. "Do nothing" does not mean the highway will not be improved. The alternative includes projects that are already programmed for construction over the next three years and routine maintenance projects such as pavement resurfacing, lane markings, and improved signage.

Each alternative was evaluated for feasibility using a scoring matrix based on the criteria presented in the public involvement discussion of this report. The alternatives were ranked by designating a score of 1-5 for each criterion depending on the potential impact of the alternative. This section presents the preliminary alternatives by segment along with the criteria scoring matrix for each segment. The key issues to be addressed by the improvement alternatives are also listed.

Segment 1

The issues of concern on Segment 1 relate to increasing congestion on the highway, as well as safety concerns over multiple private access points onto the highway. The at-grade access points create safety problems leading to increased vehicle crashes. This problem will magnify as traffic volumes increase and the number of people using the corridor for their daily commute rises.

Eight separate alternatives were considered on Segment 1 including the donothing alternative. They are:

- Alternative 1 provides passing lanes in the segment to reduce congestion caused by speed variations in the traffic flow.
- Alternatives 2 and 3 propose widening the highway to five lanes and three lanes respectively. The center lane on both of these alternatives would be a two-way left turn lane, which would accommodate access to the many driveways along this stretch of highway.
- Alternative 4 offers a combination of slow-moving vehicle turnouts



and wider shoulders allowing agricultural vehicles and slower vehicles to pull off and let other vehicles pass.

- Alternative 5 moves the alignment of US 26 to the south through existing farm fields, which would bypass the existing issue of access management on the existing alignment.
- Alternative 6 proposes a five-lane section to Milo Road, where traffic volumes are heaviest, and intersection improvements such as turn lanes between Milo Road and the US 26 Business Loop cutoff.
- **Alternative 7** proposes a four-lane section throughout Segment 1.
- Alternative 8 is the "do nothing" alternative that includes routine maintenance and committed projects over the next 2 years.

Evaluation of Recommended Improvements

The following paragraphs identify known areas of biological and cultural resource sensitivity in the vicinity of recommended highway improvements within the Highway 26 corridor. Areas of sensitivity are identified within a 100-foot corridor along either side of the existing highway centerline. Future biological and archaeological field studies conducted prior to construction may identify additional sensitive locations, or may further refine the general areas identified in this report. Sensitive areas are described by highway segment, then by recommended improvements within that segment.

5-Lane Road (MP338.240 to MP 343.455)

Areas of Biological Sensitivity Because potential habitat within right of way has undergone extensive conversion to agricultural monocultures and weed dominated disturbance communities and all natural drainages have been channelized for irrigation and flood control, construction of a 5-lane road in this section would have little effect on biological resources. It is not anticipated that any actions within this section of the corridor would affect upland plant or wildlife species. However, a determination of wetland characteristics would have to be made in areas experiencing seasonal as well as continual inundation. This would require site inspections and may require wetland delineations following U.S. Army Corps of Engineers (USACE) guidelines.

Areas of Archaeological/Architectural Sensitivity

Construction of a 5-lane road would cross at least two areas of sensitivity for potential historic architectural resources where historic residences or agricultural buildings occur within 100 feet of the highway. In addition, archaeological sites could occur throughout the route. Prior to construction, archaeological survey of unsurveyed portions of this route would be required in compliance with Section 106 of the National Historic Preservation Act (NHPA).

Intersection Improvements, Turning Bays, Acceleration/Deceleration Lanes (MP 343.455 to MP 349.294)

Areas of Biological Sensitivity
Effects to biological resources within this portion of the segment would be similar to those described in the previous section.

Intersection improvements should have no potential effect on potential wetland sites.

Areas of Archaeological/Architectural
Sensitivity
Intersection and lane improvements in this
segment could affect at least one potential
historic architectural resource in the
Shelton Road vicinity. In addition,
archaeological sites could occur
throughout the route. Prior to
construction, archaeological survey of
unsurveyed portions of this route would be
required in compliance with Section 106
of the NHPA.

US 26 corridor plan

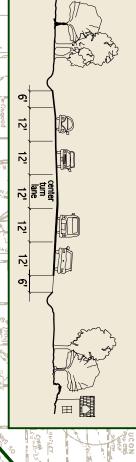
Beeches Corner to Ririe Cutoff

Segment One

Preliminary Alternatives

Figure 6





Alternative 2: 3 lane road -12 lanes, 6 shoulders



Beeches Corner (ID 43)

1) Access Management

Elements Common to

Ririe Cutoff

all Alternatives:

2) Bicycle Access

3) School Bus Access

Alternative 3: 2 lane road - 14 lanes, 12 shoulders

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center turn lane

4) Property Rights /
Local Impacts





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US 26 Corridor Plan I-15 to the Wyoming Border

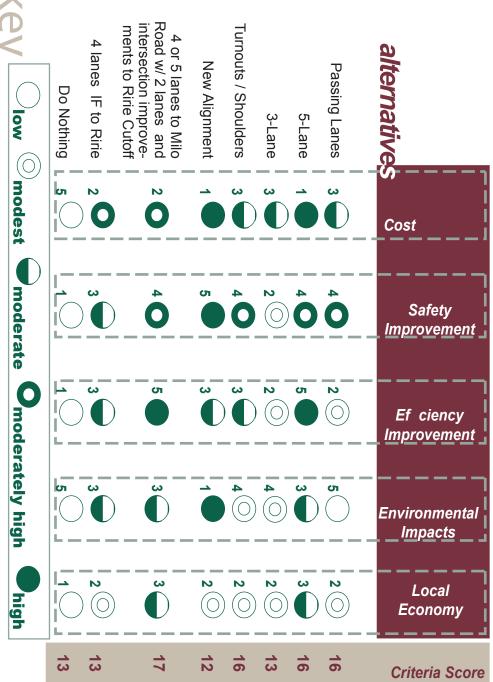
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Criteria Matrix

Beeches Corner to Ririe Cutoff

Segment One

Segment 1: Beeches Corner to Ririe Cutoff



their impacts grow, their desirability decreases. Thus, low environmental impacts score the same as high efficiency gains. depending on the impact by the alternative. Cost and environmental impacts are ranked opposite the other three because as The matrices include a scoring system that was developed to help rank each alternative. A score of I-5 was given to each element

The scores are then totaled in the right column. The higher the score, the more desirable the alternative.



I-15 to the Wyoming Border US 26 Corridor Plan

Segment 2

Slow-moving vehicles can create congestion on this segment during the summer months when both agricultural activity and seasonal tourist traffic reach a peak.

Two alternatives are listed in the following matrix for Segment 2, in addition to the "do-nothing" alternative. Alternatives were designed to provide passing opportunities for through traffic on the highway. They include:

- The addition of pullouts at periodic intervals to allow slow-moving vehicles to pull out of the traffic stream and faster vehicles to pass.
- The construction of 4 miles of passing lanes, which would be evenly spaced for two 1-mile sections in each direction.
- The "do nothing" alternative that includes routine maintenance and committed projects over the next 3 years.

Evaluation of Recommended Improvements

Pullouts and Passing Lanes in Agricultural Areas

Areas of Biological Sensitivity
Within this segment, areas of potential biological resource sensitivity increase toward the east. The segment enters the Snake River area and the Snake River Area of Critical Environmental Concern (ACEC). Construction of pullouts and passing lanes should avoid sections with wildlife movement and wetland potential. Sensitivity areas would include riparian corridors along Antelope Creek and other drainages. Because of the rolling

landscape and drainage patterns, areas of biological sensitivity would often occur in areas with limited sight distances or other safety and construction considerations. Prior to construction, a determination of wetland characteristics would be needed along stream corridors and in areas experiencing seasonal or continual inundation. This would require site inspections and may require wetland delineations following USACE guidelines. If appropriate habitat is present, surveys for the rare plant, Ute ladies' tresses, would need to be conducted by qualified personnel. Additionally, Idaho Department of Fish and Game (IDFG) may also want amphibian breeding surveys.

Timing of construction may affect sensitive biological resources between MP 355 and MP 360. In these areas there are bald eagle wintering and nesting records. U.S. Fish and Wildlife Service (USFWS) guidelines place restrictions on disturbing activities within 800 yards of bald eagle nest sites during the breeding season. Bald eagle clearance surveys could need to be conducted prior to construction near appropriate habitat. Coordination with USFWS would be required.

Areas of Archaeological/Architectural Sensitivity

Areas of sensitivity for potential historic architectural resources within 100 feet of the highway occur in one location near the western end of the segment between the Ririe Cutoff and Archer Road. In addition, archaeological resources could occur throughout the route. Prior to construction, archaeological survey of unsurveyed portions of this route would be required in compliance with Section 106 of the NHPA.

Turning Bays for New Road Approach (MP 370.500)

Areas of Biological Sensitivity Conant Valley is an area of extensive wet meadows and wetlands. Prior to construction of turning bays, a determination of wetland characteristics would be necessary. This would require site inspections and may require wetland delineations following U.S. Army Corps of Engineers (USACE) guidelines. If appropriate habitat is present, surveys for the rare plant, Ute ladies' tresses, would need to be conducted by qualified personnel. Ute ladies' tresses have been recorded in the region. Additionally, Idaho Fish and Game (IDFG) may want the site inspected for amphibian breeding habitat.

Areas of Archaeological/Architectural Sensitivity

Areas of archaeological or architectural sensitivity have not been identified at the location of this recommended improvement. Prior to construction, archaeological survey of unsurveyed areas would be required in compliance with Section 106 of the NHPA.

Alternative 3 passing lanes

Alternative 1: Do nothing

Alternative 2: Construct pullouts at periodic intervals to allow slow moving vehicles to pull out of the traffic stream and allow faster vehicles to pass.

existing

improved

Alternative 3: Construct 4 miles of passing lanes.

2 miles in each direction, evenly spaced.

See map for approximate locations.

Subdivision intersection
Is problematic. Needs turn
bays for both left and right.

Note: There are some existing passing lanes in this section.



Base of

Granite Hill

0

0

(0

Ririe Cutoff to Base of ranite Hill

Criteria Matrix

Figure **G**nine

7

The matrices include a scoring system that was developed to help rank each alternative. A score of 1-5 was given to each element. depending on the impact by the alternative. Cost and environmental impacts are ranked opposite the other three because as their impacts grow, their desirability decreases. Thus, low environmental impacts score the same as high efficiency gains. The scores are then totaled in the right column. The higher the score, the more desirable the atternative.

Criteria Score Economy

Local

lmpacts **Environmental**

lmprovement **Efbciency**

<u>lmprovement</u>

Safety

Cost

Segment 2: Ririe Cutoff to Base of Granite Hill

16 15

73

moderate

modest

Mol

S

Do Nothing

Pullouts

Passing Lanes

moderately high

high

Segment 3

Segment 3 covers such a diverse area that it was broken into two sections, 3A and 3B, for alternative analysis. The western portion of the segment (Segment 3A) follows the Snake River with winding, narrow alignment. In Segment 3B, the highway bisects the cities of Swan Valley and Irwin. The area surrounding this segment is experiencing some growth and development due to recreationally based tourism.

The primary issue on Segment 3A is roadway alignment from the Snake River Bridge to Rainey Creek. This segment of highway follows a winding path with the Snake River on one side and a steep embankment on the other side. The existing geometrics of the highway increase delay for through traffic and do not provide safe passing opportunities or sight distance for left-turning vehicles and drivers accessing the highway.

Segment 3B serves as "Main Street" for the cities of Swan Valley and Irwin. US 26 currently has two lanes and narrow shoulders through this segment and does not provide storage for left turn movements within the communities fronting the highway. The growth and development occurring on Segment 3B will magnify this issue in the future.

Three alternatives were considered to alleviate geometric problems on Segment 3A. They were:

- Realign the highway from the Snake River Bridge to Rainey Creek.
- Modify the existing roadway by widening the shoulders and

- performing minor realignments of particularly curvy sections.
- The "do nothing" alternative that includes routine maintenance and previously committed projects.

Segment 3B has four alternatives, including

- Construction of a three-lane roadway from Swan Valley to Irwin.
- Construction of a three-lane roadway from Swan Valley to Palisades.
- Maintenance of a two-lane highway and widening of the shoulder to eight feet from Swan Valley to Palisades.
- The "do nothing" alternative that includes routine maintenance and committed projects over the next 3 years.

Evaluation of Recommended Improvements

Widening and Realignment Along the Snake River (MP 373.752 to 374.800)

Areas of Biological Sensitivity This segment of US 26 bounded by the Snake River Bridge and Rainey Creek is experiencing significant landslide problems. ITD advocates continuing ongoing geological monitoring for several more years before the recommended improvement is seriously considered for inclusion in the Statewide Transportation Improvement Program. Widening into the hillside should present no biological resource problems, although wetlands issues could be significant due to the close proximity of the Snake River. A records search and potential survey for rare plants should be conducted.

Areas of Archaeological/Architectural Sensitivity

Areas of archaeological or architectural sensitivity have not been identified at the location of this recommended improvement. Prior to construction, archaeological survey of unsurveyed areas would be required in compliance with Section 106 of the NHPA.

Widen to Three Lanes, Swan Valley Area (MP 376.128 to 378.032)

Areas of Biological Sensitivity
Widening in this section would have to
consider wetland issues. Prior to
construction, a determination of wetland
characteristics would have to be made at
creek crossings and other potential
wetland areas. This would require
inspections and wetland delineations
following USACE guidelines. In
appropriate habitat, surveys for the rare
plant, Ute ladies' tresses, would need to be

conducted by qualified personnel. Records of Ute ladies' tresses are known from near this area. Additionally, IDFG may also want the site inspected for amphibian breeding habitat.

Areas of Archaeological/Architectural Sensitivity

Areas of sensitivity for historic architectural resources could occur within 100 feet of the highway in the town of Swan Valley. Prior to construction, archaeological survey of unsurveyed portions of this route would be required in compliance with Section 106 of the NHPA.

Widen to Four Lanes (MP 378.032 to 380.408)

Areas of Biological Sensitivity
Records of Ute ladies' tresses are known from near this area. Although the area of potential effect has experienced some level of disturbance, surveys for this rare plant and its habitat would need to be conducted by qualified personnel. Areas with potential wetland characteristics would also need to be assessed. This would require an inspection of the area to be widened and wetland delineations following USACE guidelines.

Areas of Archaeological/Architectural Sensitivity

Construction of a 4-lane road is likely to cross at least two areas of sensitivity for potential historic architectural resources within 100 feet of the highway between Rainey Creek Road and MP 378.045. In addition, archaeological resources could occur throughout the route. Prior to construction, archaeological survey of unsurveyed portions of this route would be required in compliance with Section 106 of the NHPA.

Widen to Three Lanes, Irwin Area (380.408 to 381.419)

Areas of Biological Sensitivity
Biological resource sensitivities are the same as those described for the previous section. Wetland issues are less likely to occur in the Irwin area.

Areas of Archaeological/Architectural Sensitivity

Areas of sensitivity for historic architectural resources could occur within 100 feet of the highway in the town of Irwin. Archaeological survey of unsurveyed locations would be required in compliance with Section 106 of the NHPA.

Segment Three

Figure 10 sn

Base of Granite Hill Realignment to Palisades Dam

Base of Granite

Hill Realignment

Preliminary Alternatives

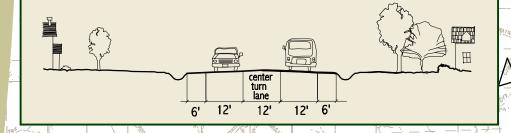
Alternative 1B: Widen

Swan Valley to Irwin to

3 lanes with 6' shoulders.

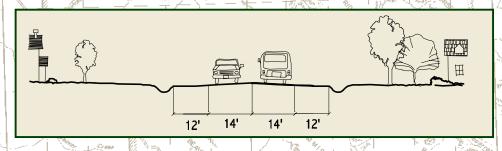
Alternative 1A: Possible Roadway Realignment

Alternative 2A: Modifications to existing roadway - widen shoulders and minor realignments.



Alternative 2B: Widen

Swan Valley to Irwin to 2 lanes with 12' shoulders.







US 26 corridor plan

Segment Three

-igure**1 1**

Base of Granite Hill to Palisades Dam

Segment 3: Granite Hill to Palisades Dam

_		, V		altern 3		S	alterna	
(ey		Widen shoulder to 8' remain 2 lanes in Swan Valley / Irwin	3 lane	alternatives 3B swan valley to palisades dam 3 lanes Swan Valley to Irwin 3		Minor widening / realignment	alternatives 3A granite hill to swan valley Realignment (south of River) 1	Ø
) Do	der to 8' ro van Valley	3 lanes Swan Valley to Palisades	swan val an Valley	Do	າing / reali	A granite hill to swa Realignment (south) of River)	alternatives
low (O)	Do Nothing L			ley to pali to Irwin I	Do Nothing		ill to swan It (south of River)	tives
modest	5	4	0	isades dar	5	0	1	Cost
mo		N	- - -	3 	-	3		
moderate) (()		$oldsymbol{\mathbb{L}}$				Safety Improvement
Omo		 ω	4	4	-	2	 ω	Efbciency
moderately high								Improvement
y high	(5)			4	5	ω		Environmental Impacts
high		· ω	51	4		<u>သ</u>	N	Local Economy
	<u></u>	16	17	18	<u></u>	13	12	Criteria Score

The matrices include a scoring system that was developed to help rank each alternative. A score of 1-5 was given to each element depending on the impact by the alternative. Cost and environmental impacts are ranked opposite the other three because as their impacts grow, their desirability decreases. Thus, low environmental impacts score the same as high efficiency gains.

The scores are then totaled in the right column. The higher the score, the more desirable the alternative.



Segment 4

Segment 4 has shoulder width inadequacies as well as sight distance limitations at most intersections. Passing opportunities are limited, which is especially problematic during summer months when heavy volumes of slowmoving tourist and recreational vehicles travel this segment.

Segment 4 has four alternatives. They include:

- Add 6-foot shoulders to accommodate bicyclists and to allow vehicles safe emergency stops.
- Provide pullouts for slow-moving vehicles, thus creating passing opportunities for other vehicles.
- Improve intersection sight distance at critical intersections on the highway.
- The "do nothing" alternative that includes routine maintenance and committed projects over the next 3 years.

Evaluation of Recommended Improvements

Vehicle Pullouts

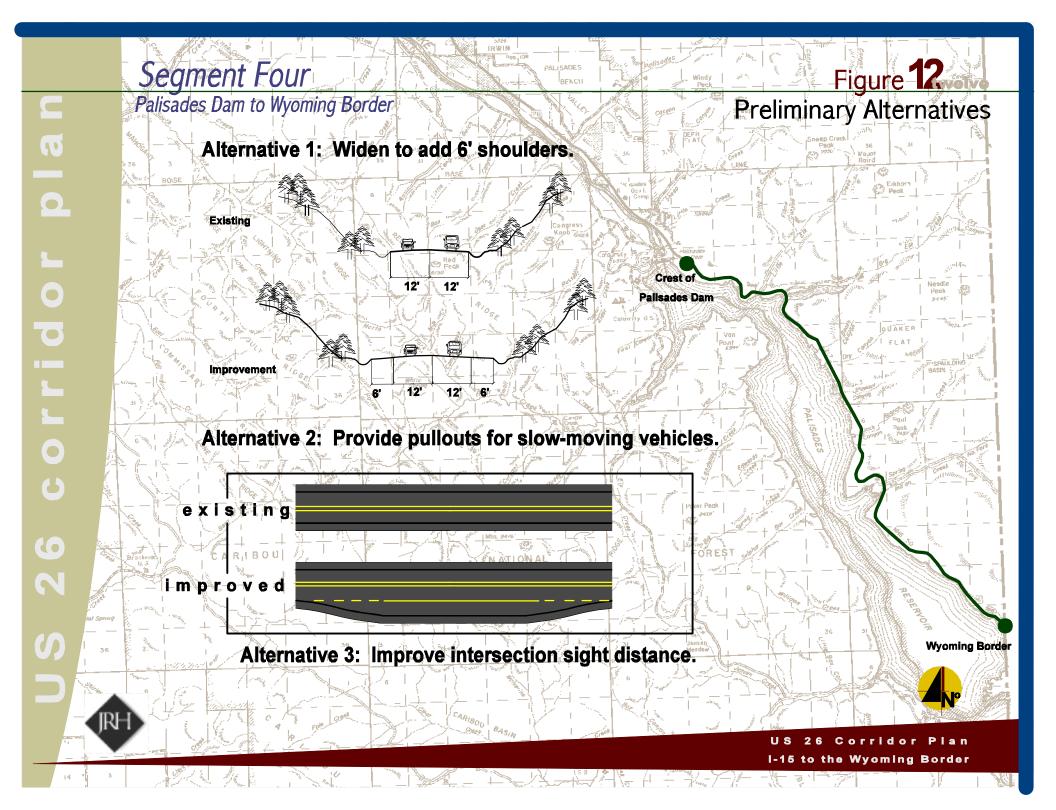
Areas of Biological Sensitivity
Construction within this segment has the potential to remove wildlife habitat. The identification of pullout locations should include a consideration of potential biological habitat issues. Most upland habitats should not be significantly affected if timing is considered and appropriate site surveys are conducted.

Drainage crossings would be particularly sensitive to construction effects, but could be developed with consideration of biological issues. Both wetlands and fisheries should be evaluated. Current Highway 26 drainage crossings along the margin of Palisades Reservoir are influencing critical fisheries of native trout species. This is most notable at the current Indian Creek crossing. Regional resource managers report that this site is harming an important cutthroat trout fishery by blocking fish movements. Because of the orientation of Indian Creek, this problem is affecting both Idaho and Wyoming. Cost sharing monies may be available to Idaho Transportation Department for construction of pullouts and passing lanes if they could be conducted in conjunction with fish habitat improvement. Consultation with IDFG and U.S. Forest Service (USFS) fisheries biologists would be required.

Timing for construction in this segment would need to consider breeding sensitivity of bald eagles, peregrine falcons, great grey owls, and flamulated owls inhabiting the surrounding forest. Surveys for these raptors and coordination with IDFG, U.S. Fish and Wildlife Service (USFWS), and USFS would be required. Prior to construction, a determination of wetland characteristics would be needed at all creek crossings and other potential wetland areas. This would require inspections and wetland delineations following USACE guidelines. In appropriate habitat, surveys for the rare plant, Ute ladies' tresses, would need to be conducted by qualified personnel. Amphibian habitat would need to be considered and identified for all construction locations. Breeding surveys would be required for protected and sensitive species such as boreal toads.



Areas of Archaeological/Architectural Sensitivity
Areas of cultural resource sensitivity could occur in the vicinity of Dry Canyon,
Blowout Canyon, Jack Branch Canyon,
and Indian Creek. Prior to construction,
archaeological survey of unsurveyed
portions of this route would be required in
compliance with Section 106 of the
NHPA.

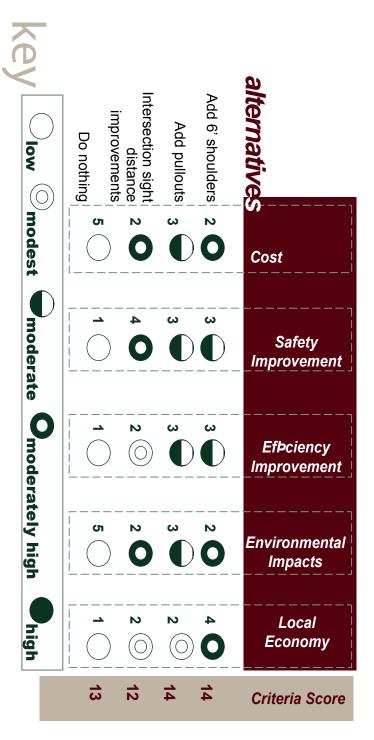


Segment Four

Palisades Dam to Wyoming Border



Segment 4: Palisades Dam to Wyoming Border



The matrices include a scoring system that was developed to help rank each alternative. A score of 1-5 was given to each element depending on the impact by the alternative. Cost and environmental impacts are ranked opposite the other three because as their impacts grow, their desirability decreases. Thus, low environmental impacts score the same as high efficiency gains.

The scores are then totaled in the right column. The higher the score, the more desirable the alternative.



5.2 Recommended Solutions

The recommended solution for each segment was selected based on public input, discussions with the Corridor Management Team, and the criteria rankings of the alternatives. The selected solutions offer a unified package of recommendations capable of achieving the goals developed for the corridor. The recommended solution for each individual segment is presented in this section, followed by a discussion of corridor wide improvement recommendations.

SEGMENT 1

Project Improvements

The recommended improvement on Segment 1 is a five-lane road with 6-foot shoulders from Beeches Corner to Milo Road, continuing with widened shoulders and intersection improvements from Milo Road to the Ririe Cutoff.

Land Use Recommendations

Segment 1 has numerous driveway access points. Some policies that are in place by the County, as well as policies that are in place by the Idaho Transportation
Department, give landowners in
Bonneville County certain rights to partition their property into smaller lots that can be used for residential sites. The County land use system is complex and is based on historical ownership of the parcels. Every original owner of property has a right to subdivide a parcel in either 1 to 10 acres, 1 to 20 acres, or 1 to 60 acres density, depending on how close they are to an urban area.

In most of Segment 1 the density requirement is 1 to 10 acres. The County also allows a landowner to partition two parcels at less than 10 acres. If three or

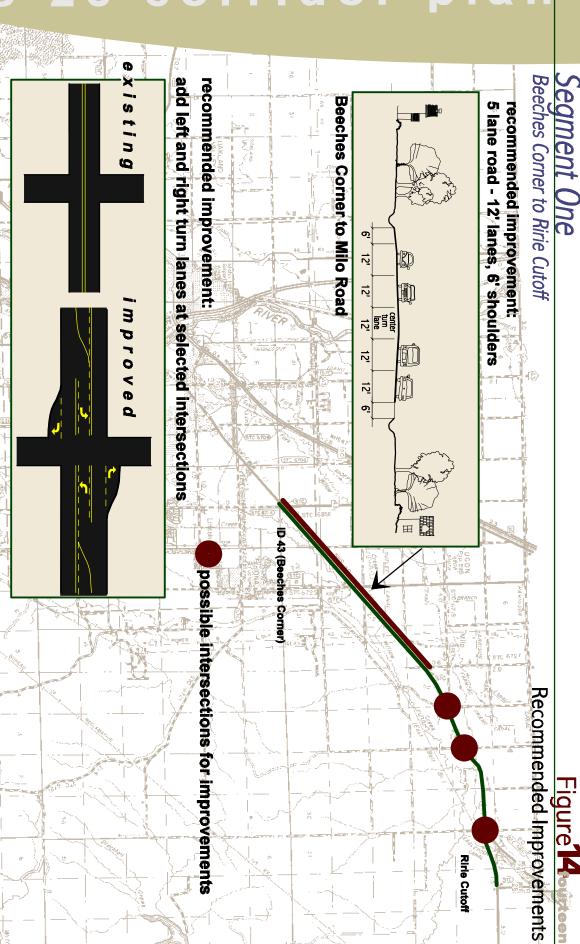
more partitions are less than 10 acres, a subdivision plat and permit need to be filed. Potentially, a farmer with 120 acres could divide his property into 12 lots, provided he has division rights through the historically based County system.

At present there is no policy in place that would require the landowner to partition in a way that would have the least amount of impact on the highway; thus, these 12 lots could mean 12 new driveways onto the highway. This scenario is very likely, because an Idaho Transportation

Department policy states that ITD cannot land-lock a parcel by refusing access to a State roadway facility.

It is a recommendation of this plan that the ITD District Planner work with Bonneville County to establish criteria that allow landowners with partition rights only one highway access by a roadway that meets County standards. If the landowner's parcel abuts an existing County road, access must be taken off of the County road, with no access rights to the State highway.

US 26 corridor plan



US 26 Corridor Plan I-15 to the Wyoming Border Milo Road to Ririe Cutoff

Solution Elimination Justification

Segment 1had the most diversity in potential solutions for improvement. Criteria scores were highest for this solution, recognizing that it was the best fit for the problems associated with Segment 1. Several other potential solutions were rejected based on lower criteria scores. The solutions were:

- Solution 1 provided passing lanes in the segment to reduce congestion caused by speed variations in the traffic flow.

 Based on travel demand forecasts for this segment, this improvement would not provide the needed capacity over the 20-year life of the plan.
- **Solution 2** proposed widening the highway to five lanes. This proposal was rejected based upon high cost and the fact that need for this intensive of an improvement could not be demonstrated for the entire corridor distance.
- Solution 3 proposed a three lane widening. This potential solution was rejected for two reasons. The solution didn't meet the long-range demand for service in this segment, and the Management Team feared drivers attempting to use the center lane for passing maneuvers would create safety problems.
- Solution 4 offered a combination of slow-moving vehicle turnouts and wider shoulders allowing slower vehicles to pull off and let other vehicles pass. This solution would not provide for the long-term demand for highway services.

- Solution 5 suggested moving the alignment of US 26 to the south through existing farm fields, which would bypass the issue of access management on the existing alignment. This solution was rejected based upon the high cost of construction and right-of-way acquisition, and the impacts to private property.
- Solution 6 proposed a five-lane section to Milo Road, where traffic volumes are heaviest, and intersection improvements such as turn lanes between Milo Road and the US 26 Business Loop cutoff.

 This is the recommended solution.
- Solution 7 proposed a four-lane section throughout Segment 1.
 This solution was rejected due to the high number of existing driveways and the need to stop in the passing lane to make a left turn.
- Solution 8 is the "do nothing" alternative that includes routine maintenance and committed projects over the next 3 years. This solution was rejected based on the high level and severity of accidents on this portion of the corridor.

SEGMENT 2

Project Improvements

There are several recommendations for improvements to Segment 2. Pullouts in the agricultural areas would allow slowmoving vehicles to move out of the traffic stream, giving faster vehicles passing opportunities. The addition of passing lanes is also recommended on this segment to alleviate congestion caused by vehicles traveling at varying speeds. The subdivision that is being developed at the base of Granite Hill will require left and right turn bays for safe access to US 26. Finally, the Clark Hill Rest Area is poorly signed in advance on the corridor, and requires eastbound traffic to stop in the passing lane to make a left turn. The addition of a left-hand turn bay is recommended to reduce the potential for collision with left-turning vehicles.

Land Use Recommendations

Segment 2 is extensively occupied by agricultural properties, but it has some significant resort type development underway that does impact the state highway. There is development potential around the Heise Hot Springs area that is not yet realized. The only access to the Heise area is off US 26. Also, in this part of the segment on the south side of the highway a dude ranch and bed & breakfast have been opened. Around the Clark Hill Rest Area a rural subdivision has been platted and approved by the County. One of the conditions of approval for the subdivision plat is that the landowner is allowed only one new access to US 26. Further east, around the old highway alignment approaching Granite Hill, a fishing resort and spa is being developed on the banks of the South Fork of the

Snake River. Finally, on the far eastern end of this segment, a rural subdivision has been platted and has lots for sale overlooking the Conant Valley.

Notification procedures need to be developed between Bonneville County and the ITD District 6 office to provide notice to the Transportation Department, (1) when a development or land use change is taking place that gains access from the State highway or from a facility whose only access point is an existing intersection with the State highway, or (2) when the development is within ½ mile of the State Highway, or is anticipated to create more than 100 trips per day and is within 2 miles of the State Highway.

I-15 to the Wyoming Border

SEGMENT 3

Project Improvements

Improvements on the portion of Segment 3 between the base of Granite Hill and Swan Valley address the poor alignment of the highway. Minor modifications to the existing roadway in the form of wider shoulders and minor realignment projects are recommended due to environmental and cost constraints.

On the portion of Segment 3 from Swan Valley to the Palisades Dam, recommended improvements include widening the highway to three lanes with 6-foot shoulders through the cities of Swan Valley and Irwin, with four lanes and 6-foot shoulders between the two cities to allow for passing opportunities.

The depression in the line of sight that exists at the intersection of Palisades Creek is also recommended for improvement. The bridge that crosses the creek has the lowest sufficiency rating of any on the corridor. ITD bridge sufficiency ratings range from 0 to 100, with bridges below 50 in need of replacement, and bridges between 50 and 80 needing rehabilitation. The score for the bridge crossing Palisades Creek is 58.3, putting it in the rehabilitation category, and not too far from needing complete replacement. When the issue of this bridge is addressed, the work scope for the project should include the leveling of the line of sight. Finally, travel demand forecasts didn't justify the extension of project improvements to the Palisades Dam.

Land Use Recommendations

The cities of Swan Valley and Irwin front on the highway. The city limits for both

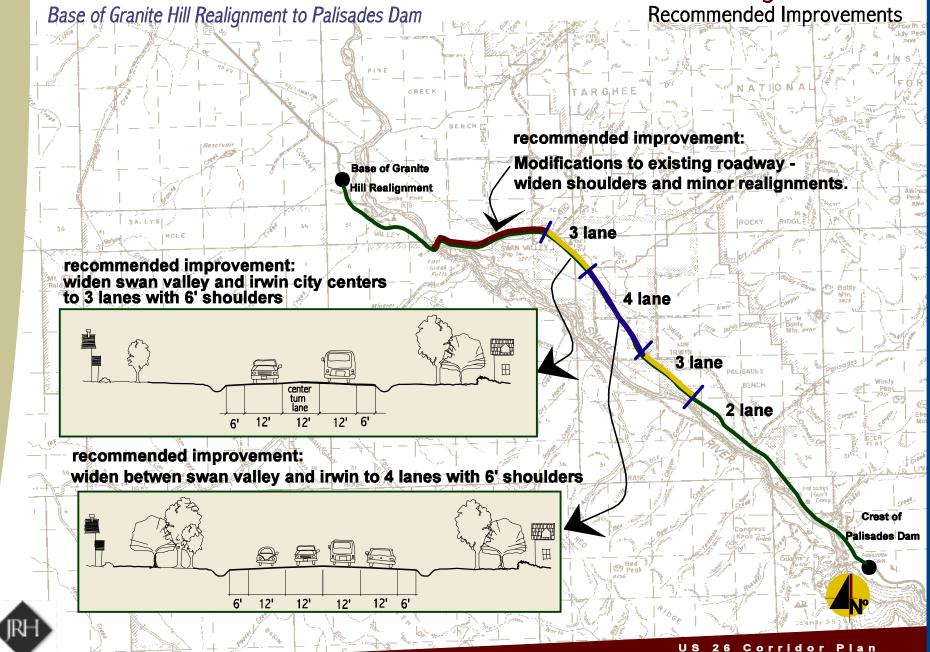
cities stretch far out into the rural areas east and west of the city centers. The city centers of both communities are beginning to develop with newer commercial uses that cater to the tourist traffic on the highway. These include restaurants, antique shops, art galleries, outdoor supply stores, and gas stations.

District 6 staff, working with City representatives and Bonneville County staff should determine the limits of the three lane improvements through the cities, and work with the individual communities on development of a community vision to integrate roadway improvements in a livable and effective manner that enhances the community while serving the needs of through traffic.

Segment Three



I-15 to the Wyoming Border



SEGMENT 4

Project Improvement

Segment 4 will benefit from the installation of pullouts to allow slow-moving recreational and truck traffic to pull out of the traffic stream and let faster vehicles pass. Pullouts will be constructed in areas where they cause the least amount of environmental disruption, to be identified in the project development process.

Land Use Recommendation

Land use in Segment 4 is not forecast to change over the next 20 years. This segment is almost entirely within the boundary for the Targhee National Forest, which no longer allows second-home development. It is not anticipated that any additional attention will be needed for land use between the Palisades Dam and the Wyoming state line.

Segement Four Figure 17 Eventeen Recommended Improvements Palisades Dam to Wyoming Border Crest of Palisades Dam recommended improvements, various locations: construct pullouts in the agricultural areas to allow slow moving vehicles to pull out of traffic stream and allow faster vehicles to pass existing (6 i m p r o v e d Wyoming Border Corridor Plan

I-15 to the Wyoming Border

Solution Elimination Justification

Two other solutions were proposed for Segment 4 that were eliminated from further consideration. They deserve special mention here because, while they are needed improvements, the plan cannot recommend their construction. The addition of 6-foot shoulders and passing lanes in this segment would greatly improve safety for alternative modes, as well as motorized traffic; however, the environmental constraints in this segment are many and onerous in their required mitigation. Many endangered and threatened species inhabit this area, and the highway cuts through, or in some instances creates habitat for these plants and animals. Any major disruption in their environment could further imperil the species. For this reason, and the associated high cost of mitigation, these two improvement recommendations are not being pursued at this time.

5.3 Corridor Wide Recommendations

Winter Road Maintenance—Snow is a frequent occurrence on US 26 during winter months. A lot of comments received during public events related to wintertime road maintenance and different ways the state might improve its winter maintenance on US 26.

One of the most important efforts District 6 can undertake is an annual review of snow maintenance practices and administrative levels of service to determine how best to distribute scarce resources. This may include revising staffing levels and the purchase of additional snow removing equipment.

Another major initiative is to incorporate advances in intelligent transportation systems. This includes such technology as rural weather information systems (RWIS) that allow faster response of maintenance staff to trouble areas, and electronic message boards that provide up-to-theminute weather conditions to the traveling public.

The district should also evaluate greater use of new technologies like the application of a chemical de-icer such as magnesium chloride in appropriate locations. Older technologies such as the construction of snow fences and shoulder reduction may also be effective under limited circumstances.

Speed Enforcement—Throughout the public involvement events, and in responses received through the newsletters, excessive speed was consistently identified as an issue for this planning process to address. Studies should be performed to determine if speed limits are set appropriately. The ITD District 6 Traffic Engineer should meet with local city governments to educate them as to how speed limits are set, and to discuss their concerns and options for setting and enforcing speed limits through their communities.

Turn Lanes—Several intersections along the corridor would gain improved traffic flow and safety with the installation of turn lanes or bays for left- and or right-turn storage. Intersections identified on Segment 1 with the recommended solution have turn lanes identified, and other intersections could benefit as well. They include:

- The entrance to the Clark Hill Rest Area;
- The entrance to Heise Hot Springs;

- The entrance to the Snake River Sportsman's Access;
- The intersection with ID 31;
- The intersection with the Palisades Creek; and,
- The intersection crossing the Palisades Dam.

Other intersections may also benefit from installation of turning movement channelization, and they will need to be evaluated on a case-by-case basis as the need arises.

Slow-Moving Vehicles—The US 26 corridor serves a host of slow-moving vehicles, including agricultural equipment, recreational vehicles, recreational and agricultural vehicles towing equipment, bicyclists, CART buses, and others. The recommended solutions in each case strongly considered the needs of slow-moving vehicles in their design and ultimate selection.

Recreational Traffic—The US 26 corridor is the gateway to many recreational attractions of regional and national significance. The South Fork of the Snake River is perhaps the most heavily fished river by out-of-state tourists, and the highway is a gateway to Jackson Hole, Wyoming, and Grand Teton National Park. These recreational destinations attract many tourists who are first-time or occasional users of the corridor. Lack of signage and advanced notice for attractions, blind intersections, and destination turn-offs can contribute to driver confusion and degrade corridor safety. ITD should review the attractions on the corridor through a sign inventory, identify what signs currently exist, and determine what additional signs might be put in place to lessen confusion for travelers.

Seasonal Fluctuation in Traffic—US 26 experiences a significant fluctuation in seasonal traffic. During the peak in the summer, traffic can be three and one-half times greater than the seasonal low in the winter. Recreational traffic also peaks on the weekend during camping and skiing seasons. Recommendations on the plan are designed to meet the demand for both average and peak-season traffic.

Signage—As previously discussed, the US 26 corridor has a dearth of informational and directional signage. It was recommended previously that an inventory of existing signs be taken, and additional signage be added. In addition, a few totally new signs could help to improve safety on the corridor. First, there is a significant amount of road kill in a couple of areas on the corridor. The grade up Granite Hill, for approximately one mile from the Conant Valley floor, and the area immediately west of the Snake River Bridge have significant amounts of road kill, as stated by Idaho Fish and Game. Signs should alert travelers to the presence of numerous large animals crossing the roadway.

In Segment 4, there are numerous blind intersections with both County roads and individual driveways. Signs alerting motorists to the conditions ahead may help to avoid conflicts with vehicles pulling onto and off the highway.

Alternative Modes—While the US 26 corridor is largely rural, it has not escaped the proliferation of alternative mode usage. Because of its scenic qualities and its relative flatness, this corridor actually attracts alternative mode users during summer months, and during winter months snow machines frequently use the

highway. Other alternative mode users include pedestrians, equestrians, four-wheelers, and CART buses on Segment 1. The common feature that would help all these modes is widened and maintained shoulders. Widened shoulders are recommended on all segments except Segment 4, because of environmental constraints. This area, however, is very attractive for cyclists and other alternative mode users; thus, shoulder improvements should be evaluated any time there is a significant improvement in this segment.

Great Western Trail—Part of the US 26 alignment may be impacted by the development of the Great Western Trail. This trail extends from the Montana border with Canada to the Nogales region of Arizona. The development of this trail is in the conceptual stages, and is being headed by the US Department of the Interior. The Twin Falls, Idaho, office is leading the trail development effort nationally. As the planning for trail alignment begins for the State of Idaho, ITD staff should be involved. Very early reconnaissance suggests that the eastern end of the US 26 corridor is being considered for a portion of the trail. Trail development in close proximity to the US 26 corridor could benefit alternative mode users.

Commercial and Residential Land

Uses—The land uses around the US 26 corridor are primarily agricultural or rural residential. There is beginning to be some development pressure along the corridor. Many large residential lots along the undeveloped section of the South Fork of the Snake River are platted and developable. Some commercial development is occurring in the Swan Valley area, and resort development is

progressing around the Snake River Sportsman's access.

As development of the corridor proceeds, the cumulative impacts on traffic operations need to be monitored. When the highway has excess capacity, congestion can still occur in areas where local land uses develop in a clustered fashion that depends on the highway for their customer access. The ITD District 6 Planner should work with local communities on the corridor as well as Bonneville County to develop consultation procedures for new development proposals. These procedures will alert the District staff to pending land use impacts on the corridor and allow them to work out potential mitigation measures to be taken by developers. By working in this type of proactive environment, the State can protect the public investment that has been made in the US 26 corridor.

Culverts—The Idaho Department of Fish and Game is interested in working with the Idaho Transportation Department to develop an inventory of existing culverts under the US 26 corridor. The Yellowstone Cutthroat Trout is a Federal species of concern and was petitioned for listing in 1998. Culverts can work as barriers to migratory fish species. The Idaho Department of Fish and Game wants to study Yellowstone Cutthroat Trout to determine the effects of culvert blockages to fish passage. They have asked the Idaho Transportation Department for \$1,000 to complete the inventory of culverts, allowing them to complete their analysis and make recommendations to ITD for needed improvements to allow fish passage. This plan fully supports ITD granting the Idaho Department of Fish and Game the \$1,000 to complete their study. This data can be very important in

ascertaining the impacts of road development activities on US 26.

Highway Striping Plan—During the public involvement events, several concerns were expressed about areas on the highway that were striped as passing zones that people felt were unsafe for passing. A review of the maintenance shop's striping plan should be conducted to determine if there are areas that should be striped with a solid line to prohibit passing where hazards might exist. It is important to periodically review the highway striping plan to determine whether new land uses or access points may have changed the adequacy of the striping schedule.

5.4 Refinement Plan

The Idaho Transportation Department determined that, given the high number of existing access driveways on Segment 1 of US 26, a more refined access management analysis of this area was warranted.

The lack of adequate access management and the uncontrolled proliferation of driveways and other approaches to a highway are major contributors to highway accidents and congestion. Access management offers a method of improving traffic operations by controlling the location, design and operations of driveways and street connections to highways. Access management on US 26 has distinct issues relating to the fact that many agricultural and residential access driveways were in place before US 26 was upgraded from a local farm road to a State highway. Over time, as use of the corridor has increased in number of vehicle miles traveled and average daily traffic, driveway access points between Idaho Falls and Ririe have become more of a

safety concern for the people living and traveling on the corridor.

Generally, sections of roadway with high average daily traffic volumes (ADT) require a low frequency of local access points for purposes of improved safety and reduced congestion and delay. Access management on US 26 is categorized by the Idaho Transportation Department as Partial Control (Type III), which requires new approaches to provide access road service only and a maximum of four existing approaches per side per mile (a maximum of three per side per mile if located in a mile-grid local road system).

Existing Access Conditions

The primary section of US 26 with access management deficiencies is Segment 1 between US 43 and the US 26 Business Loop to Ririe. Within this section of roadway, numerous driveways from residential, farm, and business land uses directly access US 26. An inventory of access locations on Segment 1 of the corridor was completed in response to access management concerns. The following figure and table show the number of existing access points per side of the highway per mile on Segment 1 of the US 26 corridor. The number of access points on this portion of US 26 far exceeds the maximum of three approaches per side per mile listed in ITD's Type III access control guide.

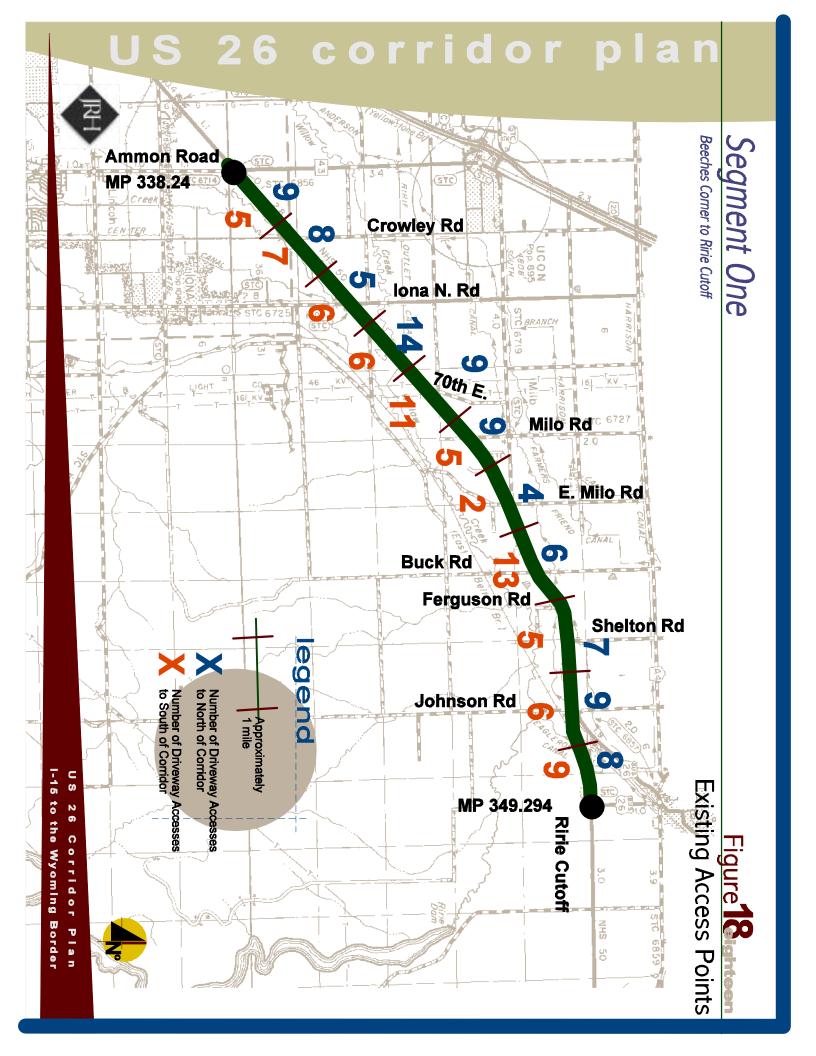


Table 22: Existing US 26 Access Points in Segment 1

One Mile Section	Access Points	Access Points	TOTAL
(MP - MP)	(North Side)	(South Side)	
338.240 — 339.000	9	5	14
339.000 — 340.000	8	7	15
340.000 — 341.000	5	6	П
341.000 — 342.000	14	6	20
342.000 — 343.000	9	II	20
343.000 — 344.000	9	5	14
344.000 — 345.000	4	2	6
345.000 — 346.000	6	13	19
346.000 — 347.000	7	5	12
347.000 — 348.000	9	6	15
348.000 — 349.294	8	9	17
TOTAL	88	75	163

Source: ITD Video Log, 1997

Access Management Techniques

A number of access management techniques can be used to increase the safety and operations of a highway. The recommended access management techniques on US 26 have been separated into two levels of implementation. The first level would not require major construction projects and could be done as a short-term solution. The second level would require more extensive construction and relocation of access points and should be regarded as a long-term solution. The access management techniques for each level are described in the following paragraphs.

Level One:

Consolidate access driveways to one per individual property. Numerous residences and agricultural fields fronting US 26 have multiple access driveways. Limiting the number of access points to one per residence, business, or fenced field would directly reduce the total number of

access driveways to the highway without requiring a costly and time-intensive solution. The process of closing multiple access points to individual properties should begin with a review of access permits to determine which access points are permitted and which are not.

Consolidate access for adjacent properties. Adjacent property owners should be encouraged to construct jointuse driveways instead of maintaining separate access points. There are many locations along US 26 with two or more residential or field access points within 50 feet of the adjacent access. Property owners should be encouraged to consolidate their driveways to reduce the number of access points on the highway.

Level Two:

Construct Local Frontage Roads.

Residential and agricultural access driveways on US 26 tend to exist in clusters along particular areas of the highway. Short frontage road systems along these driveway clusters would provide access to each property while reducing the number of access points on US 26 from as many as eight or nine to one or two. This access management technique is dependent on the availability of adequate right of way. In areas with limited right of way, a frontage road can be one-way.

Convert Access to Minor Street. Corner properties, which have frontage on US 26 as well as a minor street approach to US 26, have the option of access onto the minor street approach. Where possible

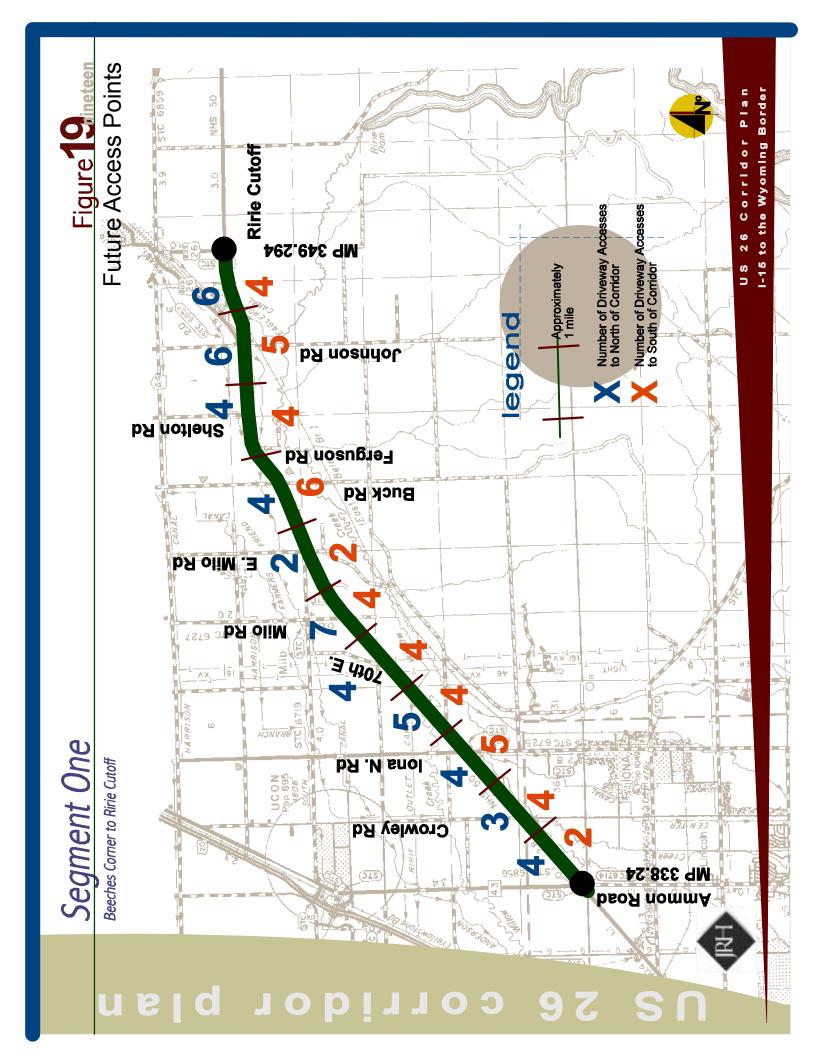
corner properties should install an access driveway onto the minor street and close their access to US 26.

Access Management Results

An analysis was completed under the assumption that, where feasible, all of the above recommended access management techniques would be implemented. The resulting reduction in access points is shown in the following figure and table. The table shows that the number of access points on Segment 1 of the US 26 corridor could be substantially reduced using the techniques listed above. The total number of access points would decrease by approximately 43% from a total of 163 access driveways to around 93 access driveways.

Table 23: US 26 Access Points in Segment 1 with Management Techniques

One Mile Section (MP — MP)	Access Points (North Side)	Access Points (South Side)	TOTAL
(111 – 111)	(North Side)	(South Side)	
338.240 — 339.000	4	2	6
339.000 — 340.000	3	4	7
340.000 — 341.000	4	5	9
341.000 — 342.000	5	4	9
342.000 — 343.000	4	4	8
343.000 — 344.000	7	4	П
344.000 — 345.000	2	2	4
345.000 — 346.000	4	6	10
346.000 — 347.000	4	4	8
347.000 — 348.000	6	5	П
348.000 — 349.294	6	4	10
TOTAL	49	44	93





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